## STIC-Biotech/ChemLib

From:

Sent:

Schnizer, Holly Tuesday, July 22, 2003 8:17 AM STIC-Biotech/ChemLib

To:

Subject:

seq. search for appl. no. 09/444,281

Please search all databases for the following two peptide sequences:

1) a peptide having the following sequence from N-terminus SEQ ID NO:35: SEQ ID NO:27: SEQ ID NO:35; this peptide is 37 amino acids in length

2) a peptide having the following sequence from N-terminus SEQ ID NO:36: SEQ ID NO:27: SEQ ID NO:35; this peptide is 35 amino acids in length

The above is searches for two peptides each made up of three SEQ ID NOs placed in order from N-terminus to Cterminus.

If you have any questions, you may reach me by email or at the phone number listed below.

thank you.

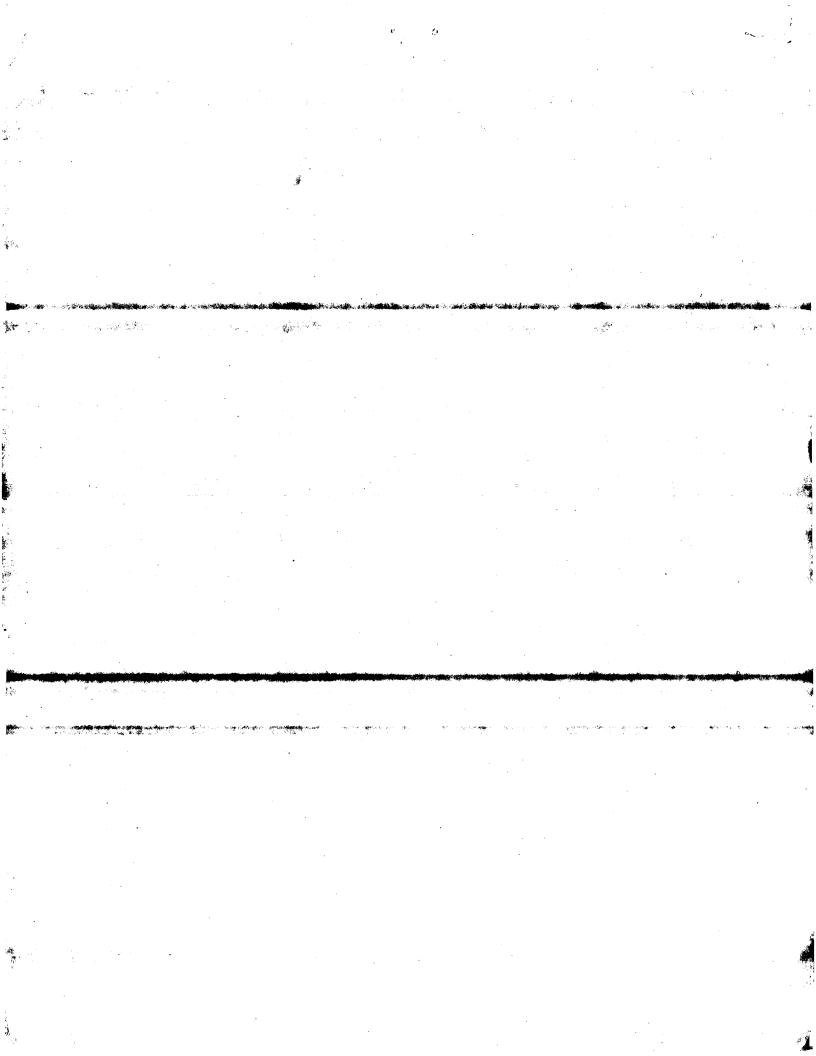
Holly Schnizer AU 1653 CM1-9E09 305-3722 mailbox: CM1-9B01

Searcher: Phone: Location: Date Picked Up: Searcher Prep/Review:\_ Clerical: Online time:

TYPE OF SEARCH:
NA Sequences:
AA Sequences:
Structures:
Bibliographic:
Litigation:
Full text:
Patent Family:

Other:

/ENDOR/COST (where a	pplic.)
STN:	
DIALOG:	
Questel/Orbit:	
DRLink:	
Lexis/Nexis:	
Sequence Sys.:	
WWW/Internet:	
Other (specify):	



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RESULT 2
AAW66363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query
                                                                                                                                                                                                                                                                                                                                                                                                             25-FEB-1998;
10-MAR-1997;
20-AUG-1997;
  agent, to
inherent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO) modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, cervix, uterus, skin, prostate, liver and colon.
                                                                       The present sequence represents an indolicidin analogue. The present invention describes compositions and methods for treating infection, especially becterial infections. The compositions and methods use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ches
                cationic peptides in combination with an antibiotic agent which are then administered to a patient to enhance the activity of the antibiotic agent, to overcome: (a) tolerance; (b) acquired resistance; and (c)
                                                                                                                                                          Claim 1;
                                                                                                                                                                                                                    activity of
                                                                                                                                                                                                                                      New indolicidin
                                                                                                                                                                                                                                                                                                                 Fraser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      bacteria; fungus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            bacterial
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1;
                                                                                                                                                                                                                                                                                                                                                      (MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                                                                                                                                                                                             26-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              polyoxyalkylene-modified cationic
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  resistance.
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                                                                                                                                                          Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ILRWPWWPWRRK; ---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            infection;
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                                                                                                                                                                                             idin peptide analogues - useful for, e.g. enhancing
antibiotic or overcoming tolerance, acquired resistance
resistance of microorganisms
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   analogue
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97US-0040649.
97US-0915314.
97US-0060099.
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63.9%;
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tolerance; antibacterial; microorganism;
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combinations
                                                                                                                                                                                                                                                                                                               West MHP;
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Pred. No. 1.6e-12;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              peptides, useful for treating tumours
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of antibiotics
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cationic
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HIV-1; gram positive bacteria; gram negative; Staphylococcus aureus; Escherichia coli; Salmonella typhimurium; yeast; fungi; protozoa; Candida albicans; Cryptococcus neoformans; Giardia; Acanthamoeba;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      peptides can provide synergistic activity against a microorganism that is tolerant, inherently resistant, or has acquired resistance to an antibiotic agent. They can be used for killing e.g. bacteria, fungi,
                                                                                                                                                                                                                                                                                                                    Cleavage-site
                                                                                                                                                                                                                                                                                                                                                                              Cleavage-site
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(REGC ) UNIV CALIFORNIA
                                18-JUN-1998;
                                                              20-MAY-1999;
                                                                                            23-DEC-1999
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                                98US-0099631
                                                             99WO-US11165
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58..63
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25..26
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GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.

- protein search, using sw model OM protein July 29, 2003, 16:18:05; Search time 58.6849 Seconds (without alignments) 97.370 Million cell updates/sec Run on:

SEQ36-27-35

236 1 ILRWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRRK Perfect score: Sequence:

36

**BLOSUM62** Scoring table:

Gapop 10.0 , Gapext 0.5

1107863 seqs, 158726573 residues Searched:

1107863 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

A\_Geneseq\_19Jun03

Database

/gcgdata/geneseq/genesegp-embl/AA1985. /gcgdata/geneseq/genesegp-embl/AA1986. /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1984. /gcgdata/geneseq/geneseqp-embl/AA198 /SIDS1/gcgdata/geneseg,

.DAT: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1989 /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1987 genesedp-embl/AA1988 /gcgdata/geneseg/ /SIDS

'SIDS1/gcgdata/geneseq/geneseqp-embl/AA1990.DAT /SIDS1/gcgdata/geneseq/genesegp-emb1/AA1992 /SIDS1/gcgdata/geneseq/genesegp-emb1/AA1993 /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1991

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Pred. No. is the number of results predicted by chance to have a score greater.than or equal to the score of the result being printed, and is derived by analysis of the total score distribution. /gcgdata/geneseg/genesegp-emb1/AA2002.DAT: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA2002.DAU: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA2003.DAU:

/SIDS1/gcgdata/geneseq/genesegp-emb1/AA2001

SUMMARIES

		dР				
Result		Query				
No.	Score	Match	re Match Length DB 1	DB	ID	Description
1				1		
1	152.5	64.6	28	21		Amino acid sequenc
7	148.5	62.9	27	19	AAW66363	Indolicidin analog
m	130.5	55.3	63	21	AAY44668	Poly-(Indol (1-13)
4	130.5	55.3	63	21	AAY57142	Indolicidin fusion
Ŋ	98.5	41.7	21	19	AAY24552	Indolicidin analog
9	98.5	41.7	21	19	AAW66376	Cationic peptide o
7	98.5	41.7	21	21	AAY91796	Amino acid sequenc
80	94.5	40.0	. 15	19	AAW66360	Indolicidin analog
6	94.5	40.0	15	21	AAY91784	Amino acid sequenc

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# ALIGNMENTS

RESULT 1 AAY91800

AAY91800 standard; Peptide; 28 AA.

AAY91800;

(first entry) 06-JUN-2000

Amino acid sequence of cationic peptide MBI j1B20CN.

Cationic peptide; tumour; pharmaceutical composition; cancer; treatment; leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon; breast; lung; ovary; multidrug resistance.

WO9965506-A2

Synthetic.

23-DEC-1999.

99WO-CA00552 14-JUN-1999;

98US-0096541. 12-JUN-1998; (MICR:) MICROLOGIX BIOTECH INC.

West MHP; Fraser JR, Erfle D, Taylor R, Friedland HD, Krieger TJ,

WPI; 2000-223549/19.

Novel pharmaceutical composition containing optionally activated

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Minimum
Maximum
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Maximum Match 100%
Listing first 45 s
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Perfect score:
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length: 2000000000
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236
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2: /SIDS1/gcgdata/g
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Copyright (c) 1993
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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Result No.	Score	Query Match Length DB	Length	DB	ID	Description
1	152.5	64.6	28	21	AAY91800	Amino acid sequenc
2	148.5	62.9	27	19	AAW66363	Indolicidin analog
ω	130.5	55.3	63	21	AAY44668	Poly-(Indol (1-13)
4	130.5	55.3	63	21	AAY57142	Indolicidin fusion
5	98.5	41.7	21	19	AAY24552	Indolicidin analog
6	98.5	41.7	21	19	AAW66376	Cationic peptide o
7	98.5	41.7	21	21	AAY91796	Amino acid sequenc
80	94.5	40.0	15	19	AAW66360	Indolicidin analog
9	94.5	40.0	15	21	AAY91784	Amino acid sequenc

45	44	43	42	41	40	39	38	37	36	35	34	ω ω	32	31	30	29	28	27	26	25	24	23	22	. 21	20	19	18	17	16	15	14	13	12	11	10
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AAW13802	AAY91813	AAY24573	AAY91812	AAY91803	AAY24572	AAY24613	AAW12896	AAY91833	AAY91791	AAY94496	AAY24550	AAY24615	AAW12877	AAY91804	AAY24580		AAY24582	AAY91811	AAY24583	ABB81254	AAY91820	AAY91819	AAY91818	AAY91774	AAY91773	AAY92795	449	16	637	9	1287	91798	N	Y917	AAY24553
Antimicrobial cati	equen	Indolicidin analog	Amino acid sequenc	Amino acid sequenc		analo	icrobi	acid	o ac	11E	Indolicidin analog	analo	'n			sequen	icidin	σ.	icid	NH2 and	acid	acid	acid	acid	o acid :	licidin analo	peptide de	peptide	onic per	olicidin analo	icrobia	o acid s	icidin		Indolicidin analog

# ALIGNMENTS

RESULT 1 AAY91800

AAY91800 standard; Peptide; 28

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AAY91800;

06-JUN-2000 (first entry)

Amino acid sequence of cationic peptide MBI 11B20CN

Cationic peptide; tumour; pharmaceutical composition; cancer: treatment; leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon; multidrug resistance

Synthetic

WO9965506-A2.

23-DEC-1999.

14-JUN-1999; 99WO-CA00552

12-JUN-1998; 98US-0096541

(MICR-) MICROLOGIX BIOTECH INC

Friedland HD, Krieger TJ, Taylor R, Erfle D, Fraser JR, West MHP

WPI; 2000-223549/19

Novel pharmaceutical composition containing optionally activated

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RESULT 2
AAW66363
ID AAW6
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The present sequence represents an indolicidin analogue. The present invention describes compositions and methods for treating infection, especially bacterial infections. The compositions and methods use cationic peptides in combination with an antibiotic agent which are then administered to a patient to enhance the activity of the antibiotic agent, to overcome: (a) tolerance; (b) acquired resistance; and (c) inherent resistance. The combinations of antibiotics and cationic
                                                                                                                                                                                                                     New indolicidin peptide analogues - useful for, activity of antibiotic or overcoming tolerance, or inherent resistance of microorganisms
                                                                                                                                                                           Claim 1; Page 91; 105pp; English.
                                                                                                                                                                                                                                                                                                                    WPI; 1998-520800/44
                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-SEP-1997;
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20-AUG-1997;
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bacterial infection;
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                                                                                                                                                                                                                                                                                                                                                                                                     (MICR-) MICROLOGIX BIOTECH INC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          invention relates to a pharmaceutical composition containing activated polyoxyalkylene (APO) modified cationic peptide. The activated polyoxyalkylene (APO) modified cationic peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This sequence represents a cationic peptide amino acid sequence, can be used in the pharmaceutical composition of the invention.
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97US-0040649.
97US-0915314.
97US-0060099.
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Pred.
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No. 1.6e-12;
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                                                                                                                                                                                                                                            resistance
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Best Local
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                                                                              20-MAY-1999;
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                                                                                                                           WO9965510-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HIV-1; gram positive bacteria; gram negative; Staphylococcus aureus; Escherichia coli; Salmonella typhimurium; yeast; fungi; protozoa; Candida albicans; Cryptococcus neoformans; Giardia; Acanthamoeba;
                             (REGC ) UNIV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Crosslinked
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     peptides can provide synergistic activity against a microorganism that is tolerant, inherently resistant, or has acquired resistance to an antibiotic agent. They can be used for killing e.g. bacteria, fungi, parasites and viruses.
                                                                                                                                                                                                                                                                                                                                                                                                     Region
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        ME,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ILRWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRRK 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ILRWPWWPWRRK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ 10 NO: 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            indolicidin analog;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          spacer
                             CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AA;
                                                     98US-0099631
                                                                                                                                                                                                                                                                                                                                                                            /label=
5..6
                                                                             99WO-US11165
                                                                                                                                                                                                                                                                                 /label=
39..40
                                                                                                                                                                                                                                                                                                         /label=
25..26
                                                                                                                                                                                                                                  /label= Cyanogen_bromide_cleavage_site
58..59
                                                                                                                                                                                                                                                           44..45
                                                                                                                                                  /label=
                                                                                                                                                                                      39..44
                                                                                                                                                                        /label=
                                                                                                                                                                                                /label=
                                                                                                                                                                                                                    /label= Cyanogen_bromide_cleavage_site
                                                                                                                                                                                                                                                                   /label= Cyanogen_bromide_cleavage_site
                                                                                                                                                                                                                                                                                                                                          /label=
                                                                                                                                                                                                                                                                                                                                                                 /label=
                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             62.9%;
66.7%;
                                                                                                                                              Hexapeptide_spacer
                                                                                                                                                                      Hexapeptide_spacer
                                                                                                                                                                                                                                                                                          Cyanogen_bromide_cleavage_site
                                                                                                                                                                                                                                                                                                                 Cyanogen_bromide_cleavage_site
                                                                                                                                                                                                                                                                                                                                                              Enterokinase_cleavage_site
                                                                                                                                                                                                                                                                                                                                        Cyanogen_bromide_cleavage_site
                                                                                                                                                                                                                                                                                                                                                                                      Enterokinase_recognition_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 148.5;
Pred. No. 4.9e
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MIL-RWPWWPWRRK 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           X-indolicidin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .5; L.
. 4.9e-12;
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   多月万生
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MB111820-clm1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                fungicide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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RESULT 4
AAY57142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δõ
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             They can be used for reducing or inhibiting the growth or survival of microorganisms in an environment e.g. a food or food product, a solution, an inanimate object comprising a surface, or a mammal. The present sequence is a protein comprising three copies of Indol 1-13 each separated by a hexapeptide spacer sequence. A recombinant construct encoding this sequence was used for the expression of Indol-homoserine (Hse) analog. The ability of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The patent discloses crosslinked analogs of indolicidin (Indol 1-13) which is a naturally occurring peptide isolated from bovine neutrophils and has antimicrobial activity. The crosslinked indolicidin (X-indolicidin) analogs are stable and have antimicrobial activity against gram positive and negative bacteria (e.g. Staphylococcus aureus, Escherichia coli and Salmonella typhimurium), yeasts and fungi (e.g. Candida alliene
                                                                                                                                                                                                                                                                                                                                             Indolicidin analogue; antimicrobial activity; helminth; bacteria; virus; treatment; inhibit growth; micro-organism; contact lens solution; transgenic plant; surgical instrument; yeast; fungi; protozoa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Crosslinked indolicidin analogs with antimicrobial activity against bacteria, yeast, fungi, protozoa and viruses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB;
         Disclosure; Fig 6; 62pp; English
                                                                                                                                  Selsted
                                                                                                                                                                                                                           05-MAY-1999;
                                                                                                                                                                                                                                                                                      W09958141-A1
                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY57142 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Candida albicans, Cryptococcus neoformans), protozoa (e.g. species and Acanthamoeba species), and viruses (e.g. HIV-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 1C; Fig 1; 53pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-147133/13.
N-PSDB; AAZ49764.
                                                       New indolicidin analogues,
                                                                                                                                                             (REGC ) UNIV
                                                                                                                                                                                                                                                          18-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                            28-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY57142;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indol-Hse analog to maintain antimicrobial activity provides a means produce X-indolicidin analog precursors in sufficient quantities.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                      2000-053028/04.
DB; AAZ45123.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             w
                                                                                                                                  ME;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RWPWWPWRRKHEAEPEAEPIMILK-KWPWWPWRR 35
                                       and virus, used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KWPWWPWRRM-----ARIAMILPWKWPWWPWRR 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        63 AA;
                                                                                                                                                                                                                                                                                                                                                                                                            fusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                               CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                             98US-0076227
                                                                                                                                                                                                                           99WO-US09942.
                                                                                                                                                                                                                                                                                                                                                                                                            peptide amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        55.3%;
61.8%;
                                      for, e.g.
                                      active against bacteria, yeast, fungi,
or, e.g. treating infections -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 130.5; DB 21
Pred. No. 2.4e-09;
L; Mismatches 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A
                                                                                                                                                                                                                                                                                                                                                                                                         acid sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Giardia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
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CC Xaa8 = homoserine (Hse), Met, Met-Xaa9-Met or absent, and
CC Xaa9 = at least one amino acid;
CC provided that if Xaal is present, Xaa8 = Hse, Met or Met-Xaa9-Met;
CC provided that if Xaal is present, Xaa8 = Hse, Met or Met-Xaa9-Met;
CC and further provided that: if Xaa2 is absent, Xaal is absent; if Xaa3 is
CC absent, Xaal and Xaa2 are absent; if Xaa4 is absent, Xaa1, Xaa2 and Xaa3
CC are absent; and if Xaa5 is absent, Xaa1, Xaa2, Xaa3 and Xaa4 are absent.
CC The indolicidin analogues can be used to create a fusion polypeptide
CC consisting of the analogue linked to a peptide. The indolicidin
CC gram negative bacteria, yeast, fungus, protozoa and viruses (e.g. HIV-1).
CC They are also active against helminths. The analogues can be used for
CC reducing or inhibiting growth or survival of a microorganism. They can be
CC used for treating infections. They can also be included in a liquid such
CC as water or an aqueous solution, e.g. contact lens solution. The
CC analogues have potential uses in food products, and in objects such as
CC the surface of an instrument used to prepare food or to perform surgery.
CC Transgenic plants or animals useful in the food industry can be produced
CC by introducing a nucleic acid molecule encoding an indolicidin analogue
CC into the germline cells of such organisms.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 5
AAY24552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \begin{array}{c} \text{SOBBOORD} \\ \text{SOBBOOR
Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Xaal = Ile, Leu, Val, Ala, (Xaa2 = Ile, Leu, Val, Ala, (Xaa3 = Pro or absent;
Xaa4 = Trp, Phe or absent;
Xaa4 = Trp or Phe;
Xaa6 = Trp or Phe;
Xaa7 = Arg, Lys or absent;
                                                                                                     13-JAN-1997;
21-AUG-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indolicidin; bacterial infection; photo-oxidised solubiliser; antimicrobial; antibiotic; antiarrythmic; surface disinfectant; additive; shampo; soap; insecticide; herbicide; preservative; food; technical material.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY24552 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     terminal region. The analogues have the following amino acid sequence: Xaa1-Xaa2-Xaa3-Xaa4-Xaa5-Xaa6-Pro-Xaa6-Xaa6-Pro-Xaa6-Yaa7-Xaa8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               analogues, which have a homoserine residue and/or a truncated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This is the amino acid sequence of an example of a fusion protein which consists of an indolicidin analogue linked to another peptide. Peptides AAY57109-Y55138 and AAY57143-Y57144 are new indolicidin
                               (MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                                                                                                26-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                      W09807745-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indolicidin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                      21-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 RWPWWPWRRKHEAEPEAEPIMILK-KWPWWPWRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KWPWWPWRRM-----ARIAMILPWKWPWWPWRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                63 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      analogue #4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                     97US-0034949.
96US-0024754.
                                                                                                                                                                                                                      97WO-US14779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   55.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gly or absent;
Gly or absent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 130.5; DB Z1;
Pred. No. 2.4e-09;
Pred. No. 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      63;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2;
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RESULT 6
AAW66376
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CC AAY24549 to AAY24615 represent indolicidin analogues of formulae CC (I)-(VIII) containing up to 25 amino acids (aa): RXZXXZXB (I), BXZXXZXB (II), BXZXXZXBB (AA)nMYILBBAGS (IV), BXZXXZXBB (AA)nM (CC (IV), BEBXZXXZXBR (VII), LKNXXXXXXRK (VII) and BBZXXXXBBB (AA)nM (CC (IV), LBBNXXAXXXKK (VII), LKNXXXXXXKK (VII) and BAZXXXXBBB (VIII). CC (IV) at least 2 X = F or Y. The analogues are used to treat CC infections caused by bacteria (Gram positive or negative, or anaerobic); fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or CC trematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola CC derived from the analogues may be used similarly; the compounds CC derived from the analogues may be used similarly; the compounds CC derived from the analogues may be used similarly; the compounds may be used therapeutically or to coat medical devices; also they are CC useful as surface disinfectants, as additives to shampoo or soaps, as consocially, generally at 0.1-50 mg/kg. These analogues have a broader correduces their roxicity than indolicidin and modification as compounds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                             25-FEB-1998;
10-MAR-1997;
20-AUG-1997;
26-SEP-1997;
(MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                  bacteria; fungus;
                                                                                                                                                                                                                                                                         Cationic peptide of claim 15
                                                                                                                                17-SEP-1998
                                                                                                                                                            WO9840401-A2
                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                  bacterial
                                                                                                                                                                                                                                                                                                                                                            AAW66376 standard;
                                                                                                   10-MAR-1998;
                                                                                                                                                                                                                                            Indolicidin analogue;
                                                                                                                                                                                                                                                                                                      12-JAN-1999
                                                                                                                                                                                                                                                                                                                                   AAW66376;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New indolicidin analogues with antimicrobial activity and related nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce toxicity, useful therapeutically, as disinfertante at a disinfertante.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Erfle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                1 ILRWPWWPWRRKHEAEPEAEPIMILKK 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          their toxicity.
                                                                                                                                                                                                                                  infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Page 88; 129pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                    (first entry)
                          98US-0030619.
97US-0040649.
97US-0915314.
97US-0060099.
                                                                                                98WO-CA00190
                                                                                                                                                                                                                  parasite; virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          therapeutically, as disinfectants etc
                                                                                                                                                                                                                                                                                                                                                           peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  41.7%;
66.7%;
                                                                                                                                                                                                                             tolerance;
                                                                                                                                                                                                                                           resistance;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Krieger TJ,
                                                                                                                                                                                                                                                                                                                                                            21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 98.5; I
Pred. No. 7.7e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                         #3
                                                                                                                                                                                                                                                                                                                                                                                                                               IMILKK 18
                                                                                                                                                                                                                                                                                                                                                           A
                                                                                                                                                                                                                           e; cationic peptide; antibiotic;
antibacterial; microorganism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Taylor R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .7e-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ВB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   , 6
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ILRWPWWPWRRK----

-IMILKK 18

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Qy
                                                                     Query Match
Best Local
                                                      Matches
                                                                                                                                                  antibiotic agent which are then administered to a patient to enhance the activity of the antibiotic agent, to overcome: (a) tolerance; (b) acquired resistance; and (c) inherent resistance. The combinations of antibiotics and cationic peptides can provide synergistic activity against a microorganism that is tolerant, inherently resistant, or has acquired resistance to an antibiotic agent. They can be used for killing e.g. bacteria, fungi, parasites and viruses.
                                                                                                                                                                                                                                                                  The present sequence represents a specifically claimed cationic peptide from the present invention. The present invention describes compositions and methods for treating infection, especially bacterial infections. The compositions and methods use cationic peptides in combination with an extension of the compositions and methods use cationic peptides in combination with an extension of the compositions.
                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                            New indolicidin peptide analogues - useful for, activity of antibiotic or overcoming tolerance, or inherent resistance of microorganisms
                                                                                                                                                                                                                                                                                                                                                           Claim 15; Page 93; 105pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1998-520800/44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fraser JR,
                                                                   Local
                    <u>ب</u>
                                                   Similarity
18; Conser
ILRWPWWPWRRKHEAEPEAEPIMILKK 27
                                                                                                                       21
                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        McNicol
                                                                                                                       AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PJ,
                                                                41.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        West
                                               Score 98.5; D
Pred. No. 7.7e
0; Mismatches
                                                            .7e-06;
                                                                                  DB
                                                                                19;
                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                               e.g. enha
                                                                            Length
                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                             enhancing
                                                                                21;
                                                                                                                                                                                                                                                                                                                                                                                                               resistance
                                               9
                                             Gaps
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RESULT 7
AAY91796
Cationic peptide; tumour; pharmaceutical composition; cancer; treatment; leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon;
                                                                                                             Amino acid sequence of cationic peptide MBI 11B16CN
                                                                                                                                                                             06-JUN-2000
                                                                                                                                                                                                                                    AAY91796;
                                                                                                                                                                                                                                                                                  AAY91796 standard; Peptide;
                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                  21
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multidrug resistance

Synthetic

23-DEC-1999.

WO9965506-A2

14-JUN-1999; 99WO-CA00552

12-JUN-1998; 98US-0096541

MICROLOGIX BIOTECH INC

Friedland HD, Krieger TJ, Taylor R, Erfle Ď Fraser JR, West MHP;

2000-223549/19

Novel pharmaceutical composition containing optionally activated polyoxyalkylene-modified cationic peptides, useful for treating tumours

Disclosure; Page 15; 94pp; English

This sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The  $\,$ 

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AAW66360
ID AAW6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                           25-FEB-1998;
10-MAR-1997;
20-AUG-1997;
26-SEP-1997;
                               cationic peptides in combination with an antibiotic agent which are then administered to a patient to enhance the activity of the antibiotic agent, to overcome: (a) tolerance; (b) acquired resistance; and (c) inherent resistance. The combinations of antibiotics and cationic peptides can provide synergistic activity against a microorganism that is tolerant, inherently resistant, or has acquired resistance to an antibiotic agent. They can be used for killing e.g. bacteria, fungi,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             invention activated
                                                                                                                                                                                                                 New indolicidin peptide analogues - useful for, activity of antibiotic or overcoming tolerance, or inherent resistance of microorganisms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary,
                                                                                                                                 invention describes compositions and methods for treating infection especially bacterial infections. The compositions and methods use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9840401-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     bacterial infection; tolerance; ar bacteria; fungus; parasite; virus.
                                                                                                                                                              The present
                                                                                                                                                                                           Claim
                                                                                                                                                                                                                                                                          WPI; 1998-520800/44.
                                                                                                                                                                                                                                                                                                         Fraser
                                                                                                                                                                                                                                                                                                                                                                                                                                10-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAW66360;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cervix, uterus, skin, prostate, liver and colon.
                         parasites
                                                                                                                                                                                                                                                                                                                                 (MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indolicidin analogue; resistance;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indolicidin analogue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAW66360 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pocar
                                                                                                                                                                                           1.
                                                                                                                                                                                                                                                                                                         JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18; Conser
                                                                                                                                                                                           Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ILRWPWWPWRRKHEAEPEAEPIMILKK 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ILRWPWWPWRRK----
                         and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             relates to a pharmaceutical composition containing at least one polyoxyalkylene (APO)-modified cationic peptide. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21
                                                                                                                                                             sequence represents an indolicidin analogue. The
                                                                                                                                                                                                                                                                                                       McNicol
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first
                                                                                                                                                                                           91;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>Α</u>
                         viruses.
                                                                                                                                                                                                                                                                                                                                                             98US-0030619.
97US-0040649.
97US-0915314.
97US-0060099.
                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-CA00190
                                                                                                                                                                                        105pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              peptide;
                                                                                                                                                                                                                                                                                                         PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41.78;
66.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tolerance; cationic peptide; antibiotic; tolerance; antibacterial; microorganism: rasite; virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MBI 11A9
                                                                                                                                                                                                                                                                                                       West MHP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 98.5; DI
Pred. No. 7.7e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.7e-06;
0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21;
                                                                                                                                                                                                                               e.g. enhancing acquired resistance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21;
                                                                                                                                                infection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9;
                                                                                                                                                              present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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Sequence

15

RESULT 10 AAY24553

1.0

X A X II

AAY24553

AAY24553 standard;

peptide;

20

AΑ

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RESULT 9
AAY91784
ID AAY9
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Best Local S
Matches 15
                                                    Best
                                        Matches
                                                             Query Match
                                                                                                                                                                                                                                                                                   WPI;
                                                                                   Sequence
                                                                                                                                     invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO) modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The
                                                                                                                                                                                                                   Claim 1;
                                                                                                                                                                                                                                                                                                                                                    12-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                       14-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                          multidrug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       breast; lung;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cationic peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         06-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAY91784;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY91784 standard; Peptide;
                                                                                                                                                                                                                                                 polyoxyalkylene-modified
                                                                                                                                                                                                                                                                                                         Friedland
                                                                                                                                                                                                                                                                                                                              (MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                   WO9965506-A2
                                                                                                       cervix, uterus, skin,
                                                                                                                             pharmaceutical composition can be used to treat tumours, specifically
                                                                                                                                                                                                                                                               Novel
                                                                                                                                                                                                                                                                                                                                                                                             23-DEC-1999
                                                                                                                  ymphoma,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  eukaemia;
                                                    Local
                                                                                                                                                                                            sequence represents a cationic peptide
                                                                                                                                                                                                                                                                                   2000-223549/19
                                                                                                                                                                                                                                                 pharmaceutical composition containing
xyalkylene-modified cationic peptides,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15;
                                        l Similarity
15; Conser
                                                                                                                                                                                     used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                   ILRWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRRK 36
                                                                                                                                                                                                                  Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ILRWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRRK 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ILRWPW---
                                                                                                       leukaemia, multiple myeloma, or
terus, skin, prostate, liver and
                                                                                                                                                                                                                                                                                                         ,
H
                                                                                                                                                                                                                                                                                                                                                                                                                                                             resistance
                                                                                    15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sequence of cationic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ptide; tumour; pharmaceutical
polyoxyalkylene-modified; APO;
                                                                                                                                                                                  ce represents a cationic peptide amino acid sequence, in the pharmaceutical composition of the invention.
                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                  . 14;
                                                                                   AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ovary; cervix; uterus; skin;
                                                                                                                                                                                                                                                                                                         Krieger TJ,
                                                                                                                                                                                                                                                                                                                                                    98US-0096541.
                                                                                                                                                                                                                                                                                                                                                                        99WO-CA00552
                                                                                                                                                                                                                 94pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            40.08;
41.78;
                                                  40.
                                                   . 78;
                                                             .0%;
                                                                                                                                                                                                                  English
                                                                                                                                                                                                                                                                                                        Taylor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 94.5; D
Pred. No. 1.7e
0; Mismatches
                                       Score 94.5; D
Pred. No. 1.7e
0; Mismatches
                                        0,:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -----WPWWPWRRK 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  peptide MBI 11A9CN
                                                                                                                                                                                                                                                                                                         72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APO; lymphoma; multiple
                                                                                                                                                                                                                                                                                                         Erfle
                                                    .7e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             composition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .7e-05;
                                                             DB
                                                                                                       tumours of breast, lung, ovary, colon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      prostate;
                                                                                                                                                                                                                                                   optionally useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19;
                                                            21;
                                                                                                                                                                                                                                                                                                        D,
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                                       0;
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                                                            Length
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                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       liver;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cancer; treatment;
                                                                                                                                                                                                                                                 activated
treating t
                                                                                                                                                                                                                                                                                                         JR,
                                                              15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21;
                                        21;
                                                                                                                                                                                                                                                                                                         West MHP;
                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                   tumours
                                                                                                                                                                                               which
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RESULT 11
AAY91797
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                                                                                                                                                                   Qy
                                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                         infections caused by bacteria (Gram positive or negative, or anaerobic); fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or trematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola hepatica, Klebsiella pneumoniae, Bordetella pertussis, Staphylococcus aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds aureus different the analogues may be used similarly; the compounds may also be prepared from antibiotics or antiarrythmic agents. The analogues may be used therapeutically or to coat medical devices; also they are useful as surface disinfectants, as additives to shampoo or soaps, as
              AAY91797;
                                             AAY91797 standard; Peptide;
                                                                                                                                                                                                                                                                                                                        insecticides or herbicides, or as preservatives for foods and technical materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1-50 mg/kg. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY24549 to AAY24615 represent indolicidin analogues of formulae
(I)-(VIII) containing up to 25 amino acids (aa): RXZXXZXB (I), BXZXXZXB
(II), BBBXXXXZXB (III), BXZXXXXBBBD(AA)nMILBBAGS (IV), BXZXXZXBB(AA)nM
(V), LBBNXZNXXZNXRK (VI), LKNXZXXZXRKK (VII) and BBXZXXZXBBB (VIII)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New indolicidin analogues with antimicrobial activity and related nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce toxicity, useful therapeutically, as disinfectants etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (V), LBBMXZNXXXXXXX (VI), LKNXZXXXXRK (VII) and BBXZXXXXXBBB (VIII) Where Z = P or V; X = hydrophobic residue, preferably W; B = basic aa, preferably R or K; AA = any aa; n = 0 or 1; in (II), at least 1 Z = V; in (VIII) at least 2 X = F or Y. The analogues are used to treat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13-JAN-1997;
21-AUG-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indolicidin; bacterial infection; photo-oxidised solubiliser;
antimicrobial; antibiotic; antiarrythmic; surface disinfectant;
additive; shampoo; soap; insecticide; herbicide; preservative;
                                                                                                                                                                                                                                                                                                               reduces their toxicity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Erfle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           W09807745-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 food;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indolicidin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1998-169090/15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 technical
                                                                                                                                                                                                          l Similarity
17; Conser
                                                                                                                                                      ILRWPWWPWRKHEAEPEAEPIMILKK 27
                                                                                                                                      ILRWPWWPWRRK----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Page 88; 129pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fraser JR,
                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                              Ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97US-0034949.
96US-0024754.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97WO-US14779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 material
                                                                                                                                                                                                                       39.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Krieger TJ,
                                               20
                                                                                                                                                                                                        0;
                                                                                                                                                                                                    Score 94; DB
Pred. No. 2.7e
0; Mismatches
                                                                                                                                      -MILKK 17
                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Taylor R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        herbicide; preservative;
                                                                                                                                                                                                                                       DB 19;
                                                                                                                                                                                                      .7e-05;
es 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              West MH
                                                                                                                                                                                                                                     Length 20
                                                                                                                                                                                                      Indels
                                                                                                                                                                                                      10;
                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                    1;
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RESULT 12
AAY24554
Вp
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                                                                                                                                                                                                                                       IJ
                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 17
                                                                                    Indolicidin; bacterial infection; photo-oxidised solubiliser; antimicrobial; antibiotic; antiarrythmic; surface disinfectant; additive; shampoo; soap; insecticide; herbicide; preservative; food; technical material.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The
                                     WO9807745-A2
                                                               Synthetic
                                                                                                                                                                                                                                   AAY24554 standard; peptide; 21 AA
                                                                                                                                                          Indolicidin
                                                                                                                                                                                   18-AUG-1999
                                                                                                                                                                                                             AAY24554;
                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                    pharmaceutical composition can be used to treat tumours, lymphoma, leukaemia, multiple myeloma, or tumours of bree cervix, uterus, skin, prostate, liver and colon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel pharmaceutical composition containing optionally activated polyoxyalkylene-modified cationic peptides, useful for treating tumours
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Friedland
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cationic peptide; tumour; pharmaceutical composition; cancer; treatment; leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 multidrug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (MICR-) MICROLÓGIX BIOTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9965506-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Amino acid sequence of cationic
                                                                                                                                                                                                                                                                                                                                                        Local Similarity nes 17; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000-223549/19
                                                                                                                                                                                                                                                                                                                              Н
                                                                                                                                                                                                                                                                                                                            ILRWPWWPWRRKHEAEPEAEPIMILKK 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  resistance
                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                       analogue
                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                             AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Krieger TJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0096541.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-CA00552
                                                                                                                                                                                                                                                                                                                                                                    39.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94pp; English.
                                                                                                                                                                                                                                                                                                      ----MILKK 17
                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Taylor R,
                                                                                                                                                                                                                                                                                                                                                                    Score 94; Depres 10 Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APO; lymphoma; multiple myeloma; skin; prostate; liver; colon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Erfle D,
                                                                                                                                                                                                                                                                                                                                                                   DB 21;
2.7e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MBI 11B17CN
                                                                                                                                                                                                                                                                                                                                                                                                                                    tumours of breast, lung, ovary, colon.
                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fraser JR,
                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                               specifically
                                                                                                                                                                                                                                                                                                                                                     10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           West MHP;
                                                                                                                                                                                                                                                                                                                                                    Gaps
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AAY91798
ID AAY9
XX
XX
AC AAY9
AC AAY9
AC AAY9
AC AAY9
AC AGA
XX
Cati
KW Cati
KW Cati
KW Leuk
KW Leuk
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XX
XX
XX
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Synt
XX
XX
PD W099
PN W099
PN W099
PD 23-D
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                                                                                                                                                                                                                                                                                                                                RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hepatica, Klebsiella pneumoniae, Bordetella pertussis, Staphylococcus aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds derived from the analogues may be used similarly; the compounds may also be prepared from antibiotics or antiarrythmic agents. The analogues may be used therapeutically or to coat medical devices; also they are useful as surface disinfectants, as additives to shampoo or soaps, as insecticides or herbicides, or as preservatives for foods and technical materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1-50 mg/kg. These analogues have a broader
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (V), LBBNXDNXXNXKK (VI), LKOXZXXXKRK (VII) and BBXZXXXZBBB (VI Where Z = P or V; X = hydrophobic residue, preferably W; B = basic preferably R or K; AA = any aa; n = 0 or 1; in (II), at least 1 Z in (VIII) at least 2 X = F or Y. The analogues are used to treat infections caused by bacteria (Gram positive or negative, or anaero fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes otrematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascarts lumbricoides, Fascibental and the controlled are Leishmania.
                 23-DEC-1999
                                                                              Synthetic
                                                                                                             multidrug
                                                                                                                           Cationic peptide; tumour; pharmaceutical composition; cancer; treatment; leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon;
                                                                                                                                                                                                Amino
                                                                                                                                                                                                                                06-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY24549 to AAY24615 represent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           conjugates with polyoxyalkylene glycol and toxicity, useful therapeutically, as disinf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Erfle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13-JAN-1997;
21-AUG-1996;
                                                WO9965506-A2
                                                                                                                                                                                                                                                               AAY91798;
                                                                                                                                                                                                                                                                                              AAY91798 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   spectrum of activity than
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New indolicidin analogues with antimicrobial activity and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  reduces their toxicity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                              acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BBBXZXXZXB (III),
                                                                                                                                                                                                                                                                                                                                                                                                                                                . Similarity
17; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               acid
                                                                                                                                                                                                                                                                                                                                                                             ILRWPWWPWRRKHEAEPEAEPIMILKK 27
                                                                                                               resistance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Page 88; 129pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fraser JR,
                                                                                                                                                                                              sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          containing up
                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative

    vectors, transformed cells and antibodies, also
ith polyoxyalkylene glycol and fatty acid to reduce
eful therapeutically, as disinfectants etc.

                                                                                                                                                                                                                               (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A
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96US-0024754.
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                                                                                                                                                                                              of.
                                                                                                                                                                                                                             entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                              39.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Krieger TJ,
                                                                                                                                                                                              cationic peptide MBI 11B18CN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           to 25 amino acids (aa): RXZXXZXB (I), BXZXXZXB
BXZXXZXBBBn(AA)nMILBBAGS (IV), BXZXXZXBB(AA)nM
), LKNXZXXZXRRK (VII) and BBXZXXZXBBB (VIII).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   indolicidin
                                                                                                                                                                                                                                                                                                21
                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 93.5; Depred. No. 3.3e 0; Mismatches
                                                                                                                                                                                                                                                                                                A
                                                                                                                                                                                                                                                                                                                                                                                 MILKK 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          indolicidin analogues of formulae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Taylor R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and modification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                .3e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                West MH;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               or anaerobic);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 compounds
                                                                                                                                                                                                                                                                                                                                                                                                                                              9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         basic aa,
1 Z = V;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fasciola
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BXZXXZXB
                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
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Д
                      Qγ
                                                                                                  Matches
                                                             Query Match
Best Local :
                                                                                                                       invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, cervix, uterus, skin, prostate, liver and colon.
                                                                                                                                                                                                                                                                                        Novel pharmaceutical composition containing polyoxyalkylene-modified cationic peptides,
                                                                                                 Sequence
                                                                                                                                                                                                               can be used in the pharmaceutical composition of the invention.
                                                                                                                                                                                                                                                    Disclosure;
                                                                                                                                                                                                                                                                                                                                                          Friedland
                                                                                                                                                                                                                                                                                                                                                                                    (MICR-) MICROLOGIX BIOTECH
                                                                                                                                                                                                                                                                                                                                                                                                             12-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                     14-JUN-1999;
                                                                                                                                                                                                                           sequence represents a cationic peptide amino
                                                                                                                                                                                                                                                                                                                                 2000-223549/19
                                               l Similarity
17; Conser
                       1 ILRWPWWPWRRKHEAEPEAEPIMILKK 27
ILRWPWWPWRRKD-----MILKK 18
                                                                                                                                                                                                                                                                                                                                                          HD,
                                                                                                  21
                                                                                                                                                                                                                                                    Page 15;
                                                 Conservative
                                                                                                  ΑĄ,
                                                                                                                                                                                                                                                                                                                                                          Krieger
                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-CA00552
                                                                                                                                                                                                                                                                                                                                                                                                           98US-0096541
                                                          39.6%;
63.0%;
                                                                                                                                                                                                                                                   94pp;
                                                                                                                                                                                                                                                                                                                                                          ŢJ,
                                                                                                                                                                                                                                                    English
                                                                                                                                                                                                                                                                                                                                                                                    INC
                                                                                                                                                                                                                                                                                                                                                          Taylor
                                              Score 93.5; I
Pred. No. 3.3e
0; Mismatches
                                               0;
                                                                                                                                                                                                                                                                                                                                                         ₩,
                                                                                                                                                                                                                                                                                                                                                          Erfle
                                                           DB 21
                                                                                                                                                                                                                                                                                         optionally useful for
                                                                      21;
                                                                                                                                                                                                                                                                                                                                                         'n
                                                                                                                                                                                                                                                                                                                                                          Fraser
                                                                                                                                                                                                                           acid sequence,
                                                                       Length
                                                 Indels
                                                                                                                                                                                                                                                                                         treating tumours
                                                                                                                                                                                                                                                                                                       activated
                                                                                                                                                                                                                                                                                                                                                          JR,
                                                                         21;
                                               9
                                                                                                                                                                                                                                                                                                                                                          West MHP;
                                               Gaps
                                                                                                                                                                                                                           which
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# RESULT 14 AAW12873 ID AAW12873; XX DT 10-DEC-1997 (first entry)

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Bacterial; viral; antitumour; food; preservative; inhibitor; growth; bacterium; yeast; endotoxaemia; sepsis; antibiotic; fungal; antiviral; Candida albicans; sterilant; Salmonella; Yersina; Shigella.

Synthetic.

W09708199-A2.
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Antimicrobial cationic peptide CP-11.

Claim 2; Page 65; 89pp; English

and as a

food

preservative

Falla

ŢŢ,

Gough M,

Hancock REW

1997-179179/16

(UYBR-) UNIV BRITISH COLUMBIA.

23-AUG-1996; 23-AUG-1995;

95US-0002687

96WO-IB00996

Cationic peptide(s) having anti-microbial inhibition of bacterial and viral growth,

activity as an antit

antitumour

used for the

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AAY24609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 13
New indolicidin analogues with antimicrobial activity and related nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY24609 standard; peptide; 13 AA.
                                                          WPI; 1998-169090/15.
                                                                                                                   (MICR-) MICROLOGIX BIOTECH INC.
                                                                                                                                                13-JAN-1997;
21-AUG-1996;
                                                                                                                                                                                          21-AUG-1997;
                                                                                                                                                                                                                       26-FEB-1998
                                                                                                                                                                                                                                                    WO9807745-A2
                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                       antimicrobial; antibiotic; antiarrythmic; surface disinfectant;
additive; shampoo; soap; insecticide; herbicide; preservative;
                                                                                                                                                                                                                                                                                                                                                     Indolicidin; bacterial infection; photo-oxidised solubiliser;
                                                                                                                                                                                                                                                                                                                                                                                  Indolicidin analogue #61.
                                                                                                                                                                                                                                                                                                                                                                                                                18-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N.B. The present sequence represents SEQ ID NO:1 in the claims and examples of the specification, but differs slightly from the SEQ II in the sequence listing on page 51 of the specification (see AAW27).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                             technical material.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24 ILKKWPWWPWRRK 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ILKKWPWWPWRRK 13
                                                                                     Fraser JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                97US-0034949.
96US-0024754.
                                                                                                                                                                                          97WO-US14779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               38.6%; 500
100.0%; Pr
                                                                                     Krieger TJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 91; DB; Pred. No. 4e-
0; Mismatches
                                                                                       Taylor R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 18;
4e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                       West MH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      m the SEQ ID NO:1 (see AAW27179).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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밁 Qy

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materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1\text{-}50~\text{mg/kg}. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         hepatica, Klebsiella pneumoniae, Bordetella pertussis, Staphylococcus aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds derived from the analogues may be used similarly; the compounds may also be prepared from antibiotics or antiarrythmic agents. The analogues
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                              may be used therapeutically or to coat medical devices; also they are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or trematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       where Z = P or V; X = hydrophobic residue, preferably W; B = basic aa, preferably R or K; AA = any aa; n = 0 or 1; in (II), at least 1 Z = V; in (VIII) at least 2 X = F or Y. The analogues are used to treat infections caused by bacteria (Gram positive or negative, or anaerobic); in the control of the cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ANY24549 to AAY24615 represent indolicidin analogues of formulae (I)-(VIII) containing up to 25 amino acids (aa): RXZXXZXB (I), BXZXXXXBB(AA)nMILBBAGS (IV), BXZXXXXBB(AA)nM (II), BBBXZXXXZRB (III), BXZXXXXBRRK (VII) and BBXZXXZXBBB (VIII).
                                                                                                                                                                                                                                                                                                                              useful as surface disinfectants, as additives to shampoo or soaps, as insecticides or herbicides, or as preservatives for foods and technical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 1; Page 32; 129pp; English.
                                                                                                          reduces their
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     AA;
                                                                                                    toxicity
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Search completed: July 29, 2003, 16:31:41 Job time : 59.6849 secs

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Query Match
Best Local Similarity
Matches 13; Conser

Conservative

38.6%; U. 100.0%; Pr

Score 91; Pred. No. Mismatches

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# ALIGNMENTS

RESULT 2 US-09-030-619-50 US-09-030-619-50  Sequence 50, Application US/09030619B  Patent No. 6503881  Patent No. 6503881  GENERAL INFORMATION: APPLICANT: Erife, Douglas  APPLICANT: Taylor, Robert  APPLICANT: Eraser, Janet R.  APPLICANT: West, Michael H.P.  APPLICANT: MCNICOL, Patricia J.  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING  TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION  TITLE OF INVENTION: WITH ANTIBIOTICS	Query Match 58.7%; Score 141.5; DB 4; Length 28; Best Local Similarity 58.8%; Pred. No. 1.6e-11; Matches 20; Conservative 2; Mismatches 1; Indels 11; Gaps 1;  Qy 4 KWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRRK 37 :          Db 3 RWPWWPWRRKILMRWPWWPWRRK 25	at s	: West, Michael H.P. : MCNICOL, Patricia J. INVENTION: COMPOSITIONS AND I INVENTION: INFECTIONS USING ( INVENTION: WITH ANTIBIOTICS REMCE: 660081.406 PPLICATION UMBER: US/09/030, ( ILING DATE: 1998-02-25 SEQ ID NOS: 232	RESULT 1 US-09-030-619-104  ; Sequence 104, Application US/09030619B ; Patent NO. 6503881 ; Patent NO. 6503881 ; PAPLICANT: Krieger, Timothy J ; APPLICANT: Taylor, Robert ; APPLICANT: Erfle, Douglas ; APPLICANT: Erfle, Douglas ; APPLICANT: Fraser, Janet R.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; OTHER INFORMATION: Indolicidin Analogue US-09-030-619-50
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 12
LENGTH: 63
                                                                                                                                                                                                                                                                                               Patent No. 6524585
GENERAL INFORMATION:
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Best Local :
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                                                                                                                                                                                                  APPLICANT: Selsted, Michael E. APPLICANT: Selsted, Michael E. TITLE OF INVENTION: Indolicidin Analogs and Methods of Using Same FILE REFERENCE: P-UC 3794 CURRENT APPLICATION NUMBER: US/09/416,481A CURRENT FILING DATE: 1999-10-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/099,631A CURRENT FILING DATE: 1998-06-18 NUMBER OF SEQ ID NOS: 13 SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Osapay, Klara
TITLE OF INVENTION: Crosslink-Stabilized Indolicidin Analogs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/030,619B
CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
                                                                                                                                          PRIOR APPLICATION NUMBER: US 09/076,227
PRIOR FILING DATE: 1998-05-12
NUMBER OF SEQ ID NOS: 39
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LENGTH: 28
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               OTHER INFORMATION: Description
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OTHER INFORMATION: construct
                                    FEATURE:
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Local Similarity 61.88;
                                                                                                                                                                                                                                                                                                                                                                                                                            11 KWPWWPWRRM------ARIAMILPWKWPWWPWRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 KWPWWPWRRKHEAEPEAEPIMILK-KWPWWPWRR 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 KWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRRK 37
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64.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 133.5;
                 of Artificial Sequence:
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US-08-702-054B-38
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Best Local Similarity
"---hes 16; Conserva
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                                                                                              US-08-915-314-54
                                                                                                           RESULT 6
                                 Patent No. 6180604
GENERAL INFORMATION:
APPLICANT: Fraser
                                                                  Sequence 54, Application US/08915314 Patent No. 6180604
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Best Local
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                                                                                                                                                                                                                                                                                                                                                      TELEFAX: 619/678-5099 INFORMATION FOR SEQ ID NO:
             APPLICANT:
                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
LENGTH: 16 amino acids
                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE: 619/678-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/0 FILING DATE: 23-AUG-1995 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/O FILING DATE: 23-AUG-1996 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
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APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: 619/678-5099
                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Haile, Lisa A.
REGISTRATION NUMBER: 38,347
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SOFTWARE: FastSE(
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STREET: 4225 Executive Square, Suite 1400
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22; Conserv
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        Fraser, Janet R. West, Michael H.P. Krieger, Timothy J.
                                                                                                                                                                                                                Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SYSTEM: Windows 95
FastSEQ for Windows Version 2.0b
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                                                                                                                                                                                                                                                                                 peptide
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23-AUG-1995
                                                                                                                                                                                                                          41.3%;
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AND METHODS OF SCREENING FOR THE SAME
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Pred. No. 3.8e-10;
                                                                                                                                                                                                             Score 99.5; DB 3;
Pred. No. 1.6e-06;
); Mismatches 0;
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                                                                                                                                                      -WPWWPWRRK 16
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; OTHER INFORMATION: Indolicidin Analogue US-09-030-619-69
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                                                                                                                           SOFTWARE: F
SEQ ID NO 69
LENGTH: 21
Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                   Patent No.
                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/030,619B CURRENT FILING DATE: 1998-02-25
                                                                                                                                                                                                                                   TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALTITLE OF INVENTION: WITH ANTIBIOTICS
                                                                                                                                                                        NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                      FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                      APPLICANT:
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                                                                                          TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION: ... CAROLASSIFICATION: ... ATTORNEY/AGENT INFORMATION: NAME: No. 6180604tenburg Ph.D., Carol NAME: No. 6180604tenburg Ph.D., Carol NAME: 39,317
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MEDIUM TYPE: Floppy disk
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TITLE OF INVENTION:
TITLE OF INVENTION:
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                          FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                   McNicol, Patricia J.
                                                                                                                                                                                                                                                                                                 Fraser, Janet R. West, Michael H.P.
                                                                                                                                                                                                                                                                                                                                 Taylor, Robert
Erfle, Douglas
                                                                                                                                                                                                                                                                                                                                                                  Krieger, Timothy J.
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ID NO: 54:
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41.1%;
64.3%;
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Score 99;
Pred. No.
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Pred. No. 2.4e-06;
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ANALOGUES OF INDOLICIDIN
DB 4;
2.4e-06;
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                                                                                                              US-08-915-314-56
                                                                                                                               RESULT 9
                                                                                                                                                                                                                                                                                                       ; SEQUENCE DESCRIPTION: SEQ ID NO: 54: US-09-667-486-54
                                                                                                                                                                                                                   Query Match
Best Local Similarity b4...
Thes 18; Conservative
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GENERAL INFORMATION:
                                                                             Patent No.
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                                                                                               Sequence
                                                               GENERAL INFORMATION:
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             APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
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FILING DATE: 20-AUG-1997
ATTORNEY/AGENT INFORMATION:
NUMBE: NO. 6538106tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING INFECTIONS USING ANALOGUES OF INDOLIC
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                                                                                56, Application US/08915314
5. 6180604
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                                                                                                                                                                                             1 ILKKWPWWPWRRKHEAEPEAEPIMILKK 28
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                                                                                                                                                                            ILKKWPWWPWRRK-----MILKK 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/09/667,486 FILING DATE: 22-Sep-2000 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                          TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: (206) 622-4900
TELEFAX: (206) 682-6031
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                                                                                                                                                                                                                                                                                                                                                                                        LENGTH:
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                          Fraser, Janet R.
West, Michael H.P.
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             Krieger,
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                                                                                                                                                                                                                                                                                                                                                                       amino acid
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                                                                                                                                                                                                                                                                                                                                                                                      21 amino acids
                                                                                                                                                                                                                                                      41.18;
64.38;
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                                                                                                                                                                                                                                                                                                                                         linear
             Timothy J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Janet
                                                                                                                                                                                                                                      Score 99; DB of Pred. No. 2.4e 0; Mismatches
                                                                                                                                                                                                                                           0;
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; FEATURE:
; OTHER INFORMATION: Indolicidin Analogue
US-09-030-619-52
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                                                                                                                              SOFTWARE: F
SEQ ID NO 52
LENGTH: 21
 Query Match
Best Local Similarity
                                                                                                                                                                                                                    APPLICANT: MCNIcol, F
TITLE OF INVENTION: C
TITLE OF INVENTION: V
TITLE OF INVENTION: V
FILE REFERENCE: 6600)
                                                                                                                                                                                                                                                                                                                                                                                     Sequence 52, Approx No. 6503881
                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
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Best Local (
                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/030,619B
CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                            ORGANISM: Artificial Sequence
                                                                                                                 TYPE: PRT
                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
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INFORMATION FOR SEQ ID NO: 56:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION UNLER: US/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: NO. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
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MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE:
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                                                                                                                                                                                                                  T: MCNICOL, PATRICIA J.
INVENTION: COMPOSITIONS AND METHODS FOR TREATING
INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
INVENTION: WITH ANTIBIOTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       l Similarity
18; Conserv
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                                                                                                                                                       FastSEQ for Windows Version 3.0
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                                                                                                                                                                                                                                                                                              West, Michael H.P.
                                                                                                                                                                                                                                                                                                                             Taylor, Robert
Erfle, Douglas
                                                                                                                                                                                                                                                                                                                                                              Krieger,
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SYSTEM: PC-DOS/MS-DOS
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1: COMPOSITIONS AND METHODS FOR TREATING
3: INFECTIONS USING ANALOGUES OF INDOLICIDIN
   40.7%;
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64.3%;
Score 98;
Pred. No.
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Pred. No. 3.2e-06;
0; Mismatches (
DB 4;
3.2e-06;
             Length 21;
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RESULT 12
US-08-915-314-55
; Sequence 55, Application US/08915314
; Patent No. 6180604
; Patent T. TIPPOPURATION.
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US-09-667-486-56
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Best Local (
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Patent No. 6
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                               APPLICANT:
APPLICANT:
               APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: NO. 6538106tenburg ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                       SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: COMPOSITIONS AND INFECTIONS USING
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                                                                                                                                                                                                                                            l Similarity
18; Conserv
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                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS: '<Unknown>
                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEPHONE: (206) 622-4900
TELEFAX: (206) 682-6031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/09/667,486
FILING DATE: 22-Sep-2000
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 21 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/08/915,314 FILING DATE: 20-AUG-1997
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      Fraser, Janet R. West, Michael H.P. Krieger, Timothy C
                                                                                                                                                                                                                                            Conservative
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Taylor, Robert
Erfle, Douglas
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                                                                                                                                                                                                                                                        Score 98; I
Pred. No. 3.
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                                                                                                                                                                                                                                                                     Length 21
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                                                         ; FEATURE:
; OTHER INFORMATION: Indolicidin Analogue
US-09-030-619-51
                                                                                                                                              NUMBLE: Fai
SOFTWARE: Fai
; SEQ ID NO 51
FNGTH: 20
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 51, Application US/09030619B Patent No. 6503881
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APPLICANT: West, Michael H.P.
APPLICANT: McNicol, Patricia J.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANTIBIOTICS
ETLE REFERENCE: ACADOM ACC
                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/030,619B
CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
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                                                                                                                                                                                                                                                                  FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
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                                                                                                              ORGANISM: Artificial Sequence
                                                                                                                                   TYPE: PRT
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LENGTH: 20 amino acids
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NAME: No. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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TELECOMMUNICATION INFORMATION:
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CORRESPONDENCE ADDRESS:
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FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION:
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17; Conserv
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                                                                                                                                                                                       FastSEQ for Windows Version 3.0
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Erfle, Douglas
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1: COMPOSITIONS AND METHODS FOR TREATING
1: INFECTIONS USING ANALOGUES OF INDOLICIDIN
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60.7%;
   38.8%;
60.7%;
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   Score 93.5;
Pred. No. 1
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   DB 4;
.1e-05;
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                   Length
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RESULT 15
US-08-915-314-30
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                                                                                   Patent No.
                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 17
GENERAL INFORMATION:
APPLICANT: Fraser;
APPLICANT: West, M
APPLICANT: Krieger
APPLICANT: Taylor,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 55, Applicati Patent No. 6538106 GENERAL INFORMATION:
                                                                                                   Sequence
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NAME: No. 6538106tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                      SEQUENCE DESCRIPTION: SEQ ID NO: 55:
                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 20 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: TELECOMMUNICATION INFORMATION:
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                                                                     30, AL.
NO. 6180604
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 90
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17; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                         TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE: (206) 622-4900
TELEFAX: (206) 682-6031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08/915,314 FILING DATE: 20-AUG-1997
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                                                                                                   Application US/08915314
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             Fraser, Janet R. West, Michael H.P. Krieger, Timothy J.
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Taylor,
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Taylor, Robert
Erfle, Douglas
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 Robert
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60.7%;
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                                                                                                                                                                                                                                                                    Score 93.5;
Pred. No. 1.
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COMPUTER READABLE FORM:

MEDIUM TYPE: F1pppy disk

COMPUTER: IBM PC compatible
COMPUTER: OCHOS/MS-DOS
CORRATING SYSTEM: PC-DOS/MS-DOS
SOFTWARR: PATENTIA Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,314
FILLING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: NO. 6180604tenburg Ph.D.. Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 60081.405
TELEFONME: (206) 682-6931
INFORMATION FOR SEQ ID NO: 30:
SEQUENCE CHARACTERISTICS:
LENGTH: 13 amino acids
TYPE: amino acids
TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
Search completed: July 29, 2003, 16:36:06 Job time: 20.274 secs
                                                                                                                                                           Query Match
Best Local Similarity
Matches 13; Conserve
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
NUMBER OF SEQUENCES: 90
CORRESPONDENCE ADDRESS:
ADDRESSEE: SEDE and BERRY LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
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E: Washington
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Result
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Maximum DB
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Perfect score:
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length: 2000000000
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241
1 ILKKWPWWPV
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1: pir1:*
2: pir2:*
3: pir3:*
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Match
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143.272 Million cell updates/sec
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pir3:*
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hypothetical prote
probable cysS prot
probable cysteinyl
E2 glycoprotein pr
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hypothetical prote
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Query Match 32.4%; Score 78; DB 1; Best Local Similarity 55.6%; Pred. No. 0.011; Matches 10; Conservative 4; Mismatches 4	A; Molecule type: protein A; Residues: 131-143 <sel> A; Experimental source: neutrophils A; Note: sequence extracted from NCBI backbone (NCBIP:83840 C; Superfamily: cathelin; cystatin homology C; Keywords: amidated carboxyl end F; 1-29/Domain: signal sequence #status predicted <sig>F; 22-129/Domain: cystatin homology <cys> F; 30-130/Domain: propeptide #status predicted <pro>F; 131-143/Product: indolicidin #status experimental <mat>F; 143/Modified site: amidated carboxyl end (Arg) (amide in</mat></pro></cys></sig></sel>	(cattle) (sicion 10-Sep-1999 64 7, 467-472, 1992 7, 467-472, 1992 Trophil bactericid 92392368; PMID:15 NID:9462; PIDN:CA W Ourris, W.L.; Tang 92 92165771; PMID:15	ALIGNMENTS RESULT 1 JC1222 Indolicidin precursor - bovine N;Alternate names: antimicrobial peptide	30 53.5 22.2 538 2 B84759 31 53.5 22.2 1113 2 JE0315 32 53 22.0 68 2 E82799 33 53 22.0 406 2 H69143 34 53 22.0 424 2 T07742 35 53 22.0 480 2 JC7552 36 53 22.0 691 2 D71430 37 53 22.0 949 2 E75352 38 53 22.0 2292 2 S35961 39 52.5 21.8 55 2 T11026 40 52.5 21.8 490 2 C84618 42 52.5 21.8 449 2 C84618 43 52.5 21.8 449 2 T50016 43 52.5 21.8 490 2 T21365 44 52.5 21.8 490 2 T21365 45 52.5 21.8 621 2 S37664
Length 144; ; Indels 0; Gaps 0;	:83840) G> <mat> ide in mature form from following</mat>	#text_change 10-Sep-1999  D.; Zanetti, M.  al peptide indolicidin.  20337  A47755.1; PID:9463  , Y.Q.; Smith, W.; Cullor, J.S.  peptide amide from neutrophils.  37821		hypothetical prote low-density lipopr hypothetical prote coenzyme F420-redu omega-6 desaturase shb-like adapter p hypothetical prote glycine cleavage s capsid polyprotein H+-transporting tw chloramphenicol 0- hypothetical prote transcription fact hypothetical prote hypothetical prote hypothetical prote hypothetical prote hypothetical prote hypothetical prote peplomeric polypro

hypothetical protein CPj0426 [imported] - Chlamydophila pneumoniae (strain J138) C; Species: Chlamydophila pneumoniae, Chlamydia pneumoniae C; Date: 02-Mar-2001 #sequence\_revision 02-Mar-2001 #text\_change 02-Mar-2001 C; Accession: H86543 R; Shinato, M.; Hirakawa, H.; Kimoto, M.; Tabuchi, M.; Kishi, F.; Ouchi, K.; Shiba Nucleic Acids Res. 28, 2311-2314, 2000 A; Fitle: Comparison of whole genome sequences of chlamydia pneumoniae J138. A; Reference number: A86491; MUID:20330349; PMID:10871362

F.; Ouchi, K.; Shiba,

Ŧ.,

RESULT H86543

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126

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A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-314 <LIO>
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S43916
      A;Cross-references: EMBL:L13418; NID:g436964, A;Note: the authors translated the initiation
                                                                                                                 A; Title: Molecular cloning of a maltose transport gene A; Reference number: S43914; MUID:94247374; PMID:8190087
                                                                                                                                                                                 hypothetical protein 3 - Bacillus stearothermophilus (Species: Bacillus stearothermophilus C;Date: 27-Jan-1995 #sequence_revision 27-Jan-1995 #: C;Accession: S43916 R;Liong, E.C.; Ferenci, T.
                                                                                                   A; Reference number: A; Accession: $43916
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A; Residues: 1-192 <REA>
A; Cross-references: GB: AE002195;
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A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-192 <STO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Title: Genome sequences of Chlamydia trachomatis MoPn and Chlamydia pneumoniae AR39. A;Reference number: A81500; MUID:20150255; PMID:10684935 A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references: GB:AE001625; GB:AE001363; NID:g4376695; PIDN:AAD18570.1; P:A;Experimental source: Strain CWL029; R;Read, T.D.; Brunham, R.C.; Shen, C.; Gill, S.R.; Heidelberg, J.F.; White, O.; C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, G.; Nucleic Acids Res. 28, 1397-1406, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         conserved hypothetical protein frameshifted CP0327 [imported] - Chlamydophi N;Alternate names: hypothetical protein CT277 homolog C;Species: Chlamydophila pneumoniae, Chlamydia pneumoniae C;Date: 23-Apr-1999 #sequence_revision 23-Apr-1999 #text_change 11-May-2000 C;Accession: D72081; G81589
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A; Residues: 1-192 <ARN>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Title: Comparative genomes of Clamydia pneumoniae and C. A; Reference number: A72000; MUID:99206606; PMID:10192388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R; Kalman, S.; Mitchell, W.; Mar
Nature Genet. 21, 385-389, 1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local's
Matches 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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                                                                                                                                                               Genet.
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11; Conserv
                                                                                                                                                                                                                                                                                                                                                                           WPWWPWRRKHEAEPEAEPIMILKKWP 30
                                                                                                                                                                                                                                                                                                                                                         WPWLPKKRQIEKLPKGEGICFLSAYP 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPWLPKKRQIEKLPKGEGICFLSAYP
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                                                                                                                                                                 243,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GB:BA000008; NID:g8978798; PIDN:BAA98634.1; GSPDB:GN00142
                                                                                                                                                         i, T. '
343-352, 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   W.; Marathe, R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        26.1%;
42.3%;
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Pred. No. 1;
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Pred. No. 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB
PIDN:AAA71981.1; PID:g436967 codon GTG for residue 1 as V
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                                                                                                                                                                                                                                                                                                                                                                                                                                  11;
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                                                                                                                                     Bacillus
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                                                                                                                                                                                                                    15-Oct-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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                                                                                                                                 stearothermophilus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hickey,
        genome polyprotein - encephalomyocarditis virus N;Contains: coat protein VP1; coat protein VP2; coat p EC 3.4.-.); RNA-directed RNA polymerase (EC 2.7.7.48) C;Species: encephalomyocarditis virus, EMCV
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GNNYE

A; Note: host Homo sapiens

coat protein

VP3;

coat

protein

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C.Accession: T36200
C.Accession: T36200
R;Oliver, K.; Harris, D.; Bentley, S
submitted to the EMBL Data Library,
submitted to number: Z21601
     g
                                  Qy
                                                                                                                                        A; Gene:
                                                                                                                                                                                                       A; Molecule type: DNA
A; Residues: 1-114 <OLI>
                                                                                                                                                                                                                                                                                                                                  hypothetical protein SCE36.09 - Streptomyces coelicolor C;Species: Streptomyces coelicolor C;Species: Streptomyces coelicolor C;Date: 03-Dec_1999 *sequence_revision 03-Dec_1999 *text_change 03-Dec_1999
                                                                                                                                                                         A; Experimental
                                                                                                                                                                                       A;Cross-references: EMBL:AL049763;
                                                                                                                                                                                                                                      A;Status: preliminary; translated from GB/EMBL/DDB
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A;Title: Complete Genome Sequence of Caulobacter crescentus.
                                                                                                                                                                                                                                                                                                                                                                                                 T36208
                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Gene:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Cross-references:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA A; Residues: 1-381 <STO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Reference number: A; Accession: B87470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C:Species: Caulobacter crescentus
C:Date: 20-Apr-2001 #sequence_revision 20-Apr-2001 #text_change 20-Apr-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ъ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         hypothetical protein CC1782 [imported] - Caulobacter crescentus
                                                                                    Query Match
Best Local Similarity
                                                                        Matches
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              170 WWPRRGGWRKALQMKPRAAPLRKLYDW 196
   93
                            18 PEAEPIMILKKW-PWWPWRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
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PETAPADAARRWRPRWPWRR 112
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                                                                                                                                                                       source: strain A3(2)
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                                                                    Conservative
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                                                                                    24.7%;
                                                                                                                                                                                                                                                                                        Bentley, S.D.; Parkhill, J.;
a Library, May 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24.9%;
37.0%;
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34.7%;
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                                                                  2;
                                                                                  Score 59.5;
Pred. No. 1
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Pred. No.
                                  36
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Pred. No.
                                                                                                                                                                                  PIDN:CAB42078.1; GSPDB:GN00070;
                                                                  Mismatches
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?.3;
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                                                                                                 Length 114;
                                                               Indels
                                                                                                                                                                                                                                                                                                       Barrell,
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F:137-391/Product: coat protein VP2 #status predicted <VP2>
F:392-622/Product: coat protein VP3 #status predicted <VP3>
F:392-622/Product: coat protein VP1 #status predicted <VP1>
F:623-910/Product: coat protein PP2-B #status predicted <PP2>
F:1057-1192/Product: core protein PP2-B #status predicted <PP2B-F:1057-1192/Product: core protein PP2-C #status predicted <PP2B-F:1193-1517/Product: core protein PP2-C #status predicted <PP2B-F:1518-1605/Product: core protein PP3-A **status predicted <PP3A-F:1606-1625/Product: genome-linked protein VP9 #status predicted <PPG-F:1626-1830/Product: proteinase #status predicted <PTS-F:1831-2290/Product: RNA-directed RNA polymerase #status predicted <RDE
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                                                                                                                                  A; Gene
A; Map
                                                                                                                                                                                                                                                                                                                A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; (ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W. A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis A;Reference number: A86141; MUID:21016719; PMID:11130712 A;Accession: E86447
                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J. Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
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F;68-136/Product: coat protein VP4 #status predicted <VP4>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: genomic RNA
A; Residues: 1337-1396,'L',139
A; Cross-references: GB: M54935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R; Petrov, N.A.; Chizhikov, V.E.
Bioorg Khim. 10, 274-279, 1984
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A;Title: The nucleotide and deduced amino acid sequences of the encephalomyocarditis 'A;Reference number: A03906; MUID:84169586; PMID:6324136
                                                                                                                                                                                                              A; Cross-references:
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A; Residues: 1-95 <STO>
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C;Species: Arabi
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Best Local
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                                                      Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      D14.5 [imported] - Arabidopsis thaliana
Arabidopsis thaliana (mouse-ear cress)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     σ
                                10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PWNPWKNTYQAVLRAEPCRVTMDIYYKRVRPFRLPLVQKEWP 1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PWWPWRRKHEAEPEAEPI - - -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   genomic RNA
                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                              GB:AE005172;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24.7%;
                                                      24.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1398-1517,'A',1519-1536,'E',1538-1556,'S',1558-1611,'T',1613-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6
                                                                                                                                                                                                              NID: g8920603; PIDN: AAF81325.1;
                             5.
                                                      Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 59.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C.J.; Federspiel, N.A.; Kaul, S.; White, Conway, A.B.; Conway, A.R.; Creasy, T.H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02-Mar-2001
                                                      59;
                                                   1.6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ----MILKKWP 30
                                                                              DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1;
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                             4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           #text_change 31-Mar-2001
                                                                            Length 95,
                                                                                                                                                                                                                                                                                                                                                                                         Southwick, A.M.; Sun, Davis, R.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 2290;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                             Indels
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                                                                                                                                                                                                              GSPDB:GN00141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17;
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                             28;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Khaykin, E.;
Maiti, R.; M
                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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z.
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                                                                                                                                                                                                                                                                                                                                                                                                                       H.; Tallon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               O.; Alon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Marziali
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 residue
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alonso
war, K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Kim,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ö
submitted to the EMBL Data
A; Reference number: S16783
A; Accession: S21976
A; Molecule type: mRNA
                                                                                               C;Species: Rattus norvegicus (Norway rat)
C;Date: 19-Mar-1997 #sequence_revision 17-Oct-1997
C;Accession: S21976
R;Kahre, O.; Ilves, H.; Speek, M.
                                                                                                                                                                                                           probable RNA-directed DNA polymerase N; Alternate names: reverse transcript
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RESULT 11
S21976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Species: Synechocystis sp.
A;Variety: PCC 6803
C;Date: 25-Apr-1997 #sequence_revision
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Reference number: A; Accession: S74708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA Res. 3, 109-136, 1996
A;Title: Sequence analysis of the genome of the unicellular cyanobacterium Synechocys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                   οy
                                                                                                                                                                                C;Genetics:
A;Gene: SCOEDB:SC6G9.38
                                                                                                                                                                                                                                                                                                                     R; Seeger, K.J.; Harris, D.; James, K.D.; submitted to the EMBL Data Library, June
                                                                                                                                                                                                                                                                                                                                                                 C; Species: Streptomyces coelicolor
C; Date: 05-Nov-1999 #sequence_revision
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Note:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-485 < KAN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Status:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R; Kaneko,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C; Accession: S74708
                                                            밁
                                                                                                                                                                                                           A; Cross-references: EMBL: AL079356; A; Experimental source: strain A3(2)
                                                                                                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-107 <SEE>
                                                                                                                                                                                                                                                                                                    A; Reference number:
                                                                                                                                                                                                                                                                                                                                                                                               hypothetical protein SC6G9.38 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Cross-references:
                                                                                                                                                                                                                                                                          A;Status:
                                                                                                                                                                                                                                                                                       A; Accession: T35634
                                                                                                                                                                                                                                                                                                                                                   C; Accession: T35634
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                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
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                                                                                                                      Matches
                                                                                                                                    Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kaneko, T.; Sato, S.; Kotani,
K.; Okumura, S.; Shimpo, S.;
A Res. 3, 109-136, 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          preliminary
                                                                                                                                                                                                                                                                      preliminary; translated from
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                                                             79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nucleotide sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12;
                                                                                      3 KKWPWWPWRRKHEAEPEAEP
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                                                                                                                                    Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PWDQWGLWALSGLGLVIWRWRRRHHAPPEQKQMLTPEVLQK 81
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                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S74322;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24.5%;
                                                                                                                                    24.1%;
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Takeuchi, C.; Wada,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GB:AB001339; NID:g1651897; PIDN:BAA16859.1; was submitted to the EMBL Data Library, June
                                                                                                                                                                                                                                                                                                                                                                                               Streptomyces coelicolor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6,
                                                                                                                      2
                                                                                                                                   Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 59; [
Pred. No. 8.
                                                                                                                                                                                                                              PIDN:CAB45629.1; GSPDB:GN00070; SCOEDB:SC6G9.38
                                                                                                                                                                                                                                                                                                                     K.D.; Parkhill, J.;
June 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ed. No. 8.6;
Mismatches
                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                          GB/EMBL/DDB
                                                                                                                                                                                                                                                                                                                                                                   05-Nov-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-Apr-1997
                                                                                                                                                  58;
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                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 485;
                                                                                                                                                    Length 107
                                                                                                                                                                                                                                                                                                                                     Barrell, B.G.; Rajandream,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Watanabe,
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                                                                                                                      Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PID:d101
                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1996
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м А

polymerase (EC 2.7.7.49) (clone MH2C) transcriptase

rat

retrotransposon

#text\_change

Library, August 1991

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R:Fernandez-Moreno, M.A.; Caballero, J.L.; Hopwood, D.A.; Malpartida, F. Cell 66, 769-780, 1991
A;Title: The act cluster contains regulatory and antibiotic export genes, A;Reference number: A40046; MUID:91347376; PMID:1878971
A;Accession: C40046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 12
T40591
DЪ
                              δÃ
                                                                                                                                                                                                                                                                                    antiblotic transport-associated protein actII-3 - Streptomyces coelicolor C;Species: Streptomyces coelicolor C;Date: 30-Jun-1992 #sequence_revision 30-Jun-1992 #text_change 22-Oct-19: C;Accession: C40046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Introns: 49/1, 120, 2, C; Superfamily: Schizosaccharomyces
                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Residues: 1-513 <KAH>
A;Cross-references: EMBL:X61295; NID:g56521; PIDN:CAA43593.1; PID:g56522
A;Experimental source: clone MH2C
                                                                                                                                       A;Cross-references: GB:M64683; NID:g153143; PIDN:AAA26691.1; PID:g153146
                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-711 <FER>
                                                                                                                                                                                                                                                                                                                                                                    C40046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: EMBL:AL035216; PIDN:CAA22819.1; A;Experimental source: strain 972h-; cosmid c646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Reference number: Z21938
A;Accession: T40591
A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    K; Seeger, K.; Harris, D.; Wood, V.; submitted to the EMBL Data Library.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hypothetical protein SPBC646.15c - fission yeast (Schizosaccharomyces pombe) C;Species: Schizosaccharomyces pombe C;Species: Schizosaccharomyces pombe C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 04-Mar-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DЪ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Gene:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Residues: 1-376 <SEE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C; Accession: T40591
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Mobile element: retrotransposon L1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Molecule type: DNA
                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Superfamily: pol
                                                                      Local Similarity
nes 9; Conser
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les 13; Consert
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332
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                                                                                                                                                                                                                                                                                                                                                                                                                                        236 WHWKRKQKSSS-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ly: pol polyprotein
nucleotidyltransferase; polyprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 WPWRRKHEAEPEAEPIMILKKWPWWPW 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10;
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IFGRWVFWPARPKHGTEPD 350
                                ILKKWPWWPWRRKHEAEPE 19
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                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      126/2; 312/2; 350/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
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                                                                                   23.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wood, V.; Rajandream, M.A.;
Library, January 1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ω
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Pred. No. 12;
4; Mismatches
                                                                                     Pred. No. 23;
                                                                                                    Score 57;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 57.5;
Pred. No. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   pombe hypothetical protein SPBC646.15c
                                                                  Mismatches
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12;
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RESULT T28094

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Search completed: July 29, Job time: 26.8356 secs

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C;Keywords: ATP; surface
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N.Alternate names: surface antigen, 200K
C;Species: Schistosoma mansoni
C;Date: 22-Nov-1993 *sequence_revision 06-Sep-1996 *text_change 13-Feb-1998
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C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 04-Mar-2000
                                                                                                                                                                    A; Note: the authors translated the C; Superfamily: myosin heavy chain;
                                                                                                                                                                                                                           A; Molecule type: mRNA
A; Residues: 1-527 <SOI>
                                                                                                                                                                                                                                                                   A; Reference number: A; Accession: S33068
                                                                                                                                                                                                                                                                                  R;Soisson, L.M.A.; Masterson, C.P.; Tom, T.D.; McNally, M.T.; Low
J. Immunol. 149, 3612-3620, 1992
A;Tille: Induction of protective immunity in mice using a 62-kDa
A;Reference number: A46514; MUID:93056536; PMID:1431131
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R; Soisson, L.M.A.; 1
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C;Superfamily: Caenorhabditis elegans hypothetical protein ZK899.2
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R PDB; 1G89; 17-JAN-01.

R PDB; 1G80; 17-JAN-01.

R PDB; 1G8C; 17-JAN-01.

R PDB; 1HR1; 31-DEC-02.

InterPro; IPR001894; Cathelicidin; 1.

R Pfam; pF00666; Cathelicidin; 1.

R ProDom; PD001838; Cathelicidin; 1.

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21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
21-JUL-1986 (Rel. 01, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Genome polyprotein [Contains: Coat proteins VPI TO VP4; Core proteins P2A TO P2C, P3A; Genome-linked protein VPG; Picornain 3C
(EC 3.4.22.28) (Protease 3C) (P3C); RNA-directed RNA polymerase P3D
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InterPro; IPRO04175; 2_5_ligase.
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30-MAY-2000 (Rel. 39, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Hypothetical 35.7 kDa protein in malA 3'region (ORF3).
Bacillus stearothermophilus.
Bacteria; Firmicutes; Bacillales; Bacillaceae; Geobaci
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131
30
                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                      PubMed=8190087;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96 B
124 B
143 A
16479 MW;
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143
30
                                                                                                                                                                      35735 MW;
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                                                                                                                                             25.7%;
34.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . 68;
                                                                                                                                    5;
                                                                                                                                            Score 62;
Pred. No.
                                                                                                                                                                                                                                               is not removed.
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Pred.
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PYRROLIDONE CARBOXYLIC ACID (BY
SIMILARITY).

BY SIMILARITY.

BY SIMILARITY.

AMIDATION (G-144 PROVIDE AMIDE GROUP).

E3B1CBBE55C09911 CRC64;
                                                            PRT;
                                                                                                                                                                     B54E25FD3F72BFC4 CRC64;
                                                                                                                                    Mismatches
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                                                                                                                                    13;
                                                                                                                                                                                                                                            Usage
                                                                                                                                                                                                                                                                                                                    from
                                                                                                                                                   Length 314;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 144;
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                                                                                                                                                                                                                                                             restrictions
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                                                                                                                                                                                                                                                                     EMBL
                                                                                                                                                                                                                                                                     a collaboration
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В Qy

967

PWNPWKNTYQAVLRAEPCRVTMDIYYKRVRPFRLPLVQKEWP 1008

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Query Match
Best Local S
Matches 11
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InterPro; IPR000605; I
InterPro; IPR007095; I
InterPro; IPR007205; I
InterPro; IPR007094; I
                                                                                                     ACT_SITE
ACT_SITE
SEQUENCE
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CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam;
                                                                                                                                                          LIPID
                                                                                                                                                                            CHAIN
                                                                                                                                                                                                                                                                                                                                                                                     Pfam; PF00910; RNA_helicase; 1.
Polyprotein; Coat protein; Core protein;
RNA-directed RNA polymerase; Hydrolase; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nucleic Acids Res. 12:2969-2985(1984).

-! FUNCTION: P3C POLYPEPTIDE IS A PROTEASE THAT CLEAVES AT CERTAIN O/G SITES IN THE POLYPROTEIN. IT MAY BE A CYSTEINE PROTEASE.
-!- CATALYTIC ACTIVITY: Selective cleavage of Gln-1-Gly bond in the poliovirus polyprotein. In other picornavirus reactions Glu may substituted for Gln, and Ser or Thr for Gly.
                                                                                                                                                                                                                                                                 CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    encephalomyccarditis viral polyprotein coding region."; Nucleic Acids Res. 12:2969-2985(1984).
                                                                                                                                                                                                                                                                                                                                                                        PROPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF00073; rhv; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; X00463; CAA25152.1;
PIR; A03906; GNNYE.
HSSP; P12296; 2MEV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               entities requires a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the European Bioinformatics Institute. There are no resuse by non-profit institutions as long as its content modified and this statement is not removed. Usage by an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Palmenberg A.C., Kirby E.M., Janda M.R Potratz K.F., Collett M.S.;
"The nucleotide and deduced amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=84169586;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cardiovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Encephalomyocarditis virus.
Viruses; ssRNA positive-strand viruses, no DNA stage; Picornaviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEROPS; C03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SWISS-PROT entry is copyright: It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PTM: SPECIFIC ENZYMATIC CLEAVAGES IN VIVO YIELD MATURE PROTEINS SIMILARITY: THE PROTEASE BELONGS TO PEPTIDASE FAMILY C3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBUNIT: THE VIRUS CAPSID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RNA ] (N).
                                                                                                                                                                                                                                                                                                                                                                                                                                    PF00680; RNA_dep_RNA_pol; 1.
   σ
                                                    Similarity
 PWWPWRRKHEAEPEAEPI - - - -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AND VP4. SPECIFIC ENZYMATIC CLEAVAGES
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1518
1606
1626
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                                                                                                       AA;
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1517
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                                                                                                                                                                                          1830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Rhv.
; RNA_helicase.
; RNA_pol_DS_PS.
; RNA_pol_P3D.
; RNA_pol_PSvir.
                                                    24.7%;
26.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               license agreement
                                                                                                       255756
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<
                                  Score 59.5; I
Pred. No. 17;
6; Mismatches
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                                                                                                                                                                                                                       CORE PROTEIN P2A
CORE PROTEIN P2B
CORE PROTEIN P2C
CORE PROTEIN P3A.
                                                                                                                                                                                                                                                                                              COAT
                                                                                                                                                                                                                                                                                                                COAT PROTEIN VP4
COAT PROTEIN VP3
                                                                                                                     PROTEASE (POTENTIAL).
PROTEASE (POTENTIAL).
                                                                                                                                                      MYRISTATE (BY SIMILARITY).
                                                                                                                                                                    PICORNAIN 3C (P22).
RNA-DIRECTED RNA POLYMERASE P3D
                                                                                                                                                                                                     GENOME-LINKED PROTEIN VPG (H).
                                                                                                                                                                                                                                                                                                                                                                   LEADER PEPTIDE
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OF ONE COPY
                                                                                                     26BC81BB7CF68CB5 CRC64;
                                             3 59.5;
17;
                                                                                                                                                                                                                                                                                              PROTEIN VP1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                   Thiol
                                                                                                                                                                                                                                                                                                                                                                                                       Transferase;
                                                                    DΒ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OF 60 ICOSAHEDRAL UNITS, EACH OF PROTEINS VP1, VP2,
MILKKWP 30
                                                                   1;
                                                                                                                                                                                                                                                                                                              (RHO).
(BETA).
(GAMMA).
                                  8,
                                                                                                                                                                                                                                         (F).
                                                                                                                                                                                                                                                          (G).
                                                                                                                                                                                                                                                                                                                                                                                   protease; Myristate
                                                                                                                                                                                                                                                                                              (ALPHA).
                                                                 Length 2290;
                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Duke
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                                17;
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TRÂNSMEM
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         between the owner that the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bentley S.D., Chater K.F., Cerdeno-Tarraga A.-M., Challis G.L., Thomson N.R., James K.D., Harris D.E., Quail M.A., Kieser H., Harper D., Bateman A., Brown S., Chandra G., Chen C.W., Collins M. Cronin A., Fraser A., Goble A., Hidalgo J., Hornsby T., Howarth S. Huang C.-H., Kieser T., Larke L., Murphy L., Ollver K., O'Neil S., Rabbinowitsch E., Rajandream M.A., Rutherford K., Rutter S., Seeger K., Saunders D., Sharp S., Squares R., Squares S., Taylor K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Streptomyces.";
Cell 66:769-780(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.

MEDLINE-91347376; PubMed-1878971;
Fernandez-Moreno M.A., Caballero J.L., Hopwood D.A., Malpan "The act cluster contains regulatory and antibiotic export direct targets for translational control by the bida trna streptomyces.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MMLA_ST
Q53902;
                                                                                                                                                                                                                                                                                                                                                           InterPro; IPR004869; MMPL,
InterPro; IPR000731; SSD_5
Pfam; PF03176; MMPL; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Complete genome sequence coelicolor A3(2).";
Nature 417:141-147(2002).
                                                                                                                                                                                                                                                                                                            TIGREAMS; TIGRO0833; PROSITE; PS50156; SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hopwood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=A3(2) / M145;
MEDLINE=21996410; PubMed=12000953;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Streptomycineae;
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30-MAY-2000 (Rel.
28-FEB-2003 (Rel.
                                                                                                                                                                                                                                                                                          Hypothetical
                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR004707; ActII.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; M64683; AAA26691.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entities requires a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -!- SUBCELLULAR LOCATION: Integral membrane protein-!- SIMILARITY: BELONGS TO THE MMPL FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Warren T., Wietzorrek A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=1902;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Streptomyces coelicolor.
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                                                                                                                                                                                                  175
199
235
                                                                                                                                                                                                                                                                                     protein;
  AA;
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ein; Transmembrane;
POTENTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     39, Created)
39, Last sequence update)
41, Last annotation update)
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4 OR SCBAC28G1.10
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A5466BEDABEED1B6 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Usage
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a collaboration - MBL outstation
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RESULT 6
ENV_CAPE
ID ENV C
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AC P3163
DT 01-JU
DT 16-OC
DT 16-OC
DE ENV E
GN ENV C
GN ENV C
GS CAPT
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ATP8_ANAPL
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                                             P31627;
01-JUL-1993
16-OCT-2001
16-OCT-2001
                                                                                                                                                                                                                                                                Hydrogen
TRANSMEM
                     01-JUL-1993 (Rel. 26, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Env polyprotein precursor (Coat polyprotein
protein; Transmembrane protein].
                                                                                                                                                                                                                                                                                                                                                                                     the
                                                                                                                                                                                                                                                                                                                                                                                                            This
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Archosauria; Aves;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATP synthase
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 Caprine arthritis encephalitis virus
                                                                                              ENV_CAEVG
                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                           Pfam; PF00895; ATP-synt_8;
Hydrogen ion transport; CF
                                                                                                                                                                                                                                                                                                              EMBL; L22476; AAA72037.1; -
                                                                                                                                                                                                                                                                                                                                    use by non-profit institutions as long modified and this statement is not removed entitles requires a license agreement (See or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mitochondrion.
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                                                                                                                                                                                                                                                                                                    nterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Molecular characterization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mol.
                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBCELLULAR LOCATION: Membrane-bound.
SIMILARITY: BELONGS TO THE ATPASE PROTEIN 8 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FUNCTION: THIS IS ONE OF THE CHAINS (CF(0) SUBUNIT) OF THE MITOCHONDRIAL CATALYTIC ACTIVITY: ATP + H(2)0 + H(4)
                                                                                                                                                                                                                                                                                                                                                                                   European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              function:
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(Rel. 41, Last annotation update)
protein 8 (EC 3.6.3.14) (ATPase
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and evolution of a duck mitochondrial
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Pred. No. 1.4;
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(strain G63) (CAEV)
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IAL ATPASE COMPLEX.
H(+)(In) = ADP + phosp
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rmes; Anatidae;
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Submitted (APR-2000)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REVISIONS
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NCBI_TaxID=11662;
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Pred. No. 22;
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TRANSMEMBRANE PROTEIN (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                       between the Swiss Institute of Bioinformatics the European Bioinformatics Institute. There a use by non-profit institutions as long as
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Querat G., Audoly G., Sonigo P., Vigne R.;
"Nucleotide sequence analysis of SA-OMVV, a visna
lentlvirus: phylogenetic history of lentiviruses.
Virology 175:434-447(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ovine lentivirus
Viruses; Retroid
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viruses; Retroviridae;
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01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-98295987; PubMed-9634230;
Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harr Cole S.Y., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F., Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F., Badcock K., Basham D., Brown D., Chillingworth T., Connor R., Bavies R., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroy Hornsy T., Jagels K., Krogh A., McLean J., Moule S., Murphy L., Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J., Rutter S., Seger K., Skelton S., Squares S., Squares R., Sulston J.E., Taylor K., Whitehead S., Barrell B.G.; "Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence.";
Nature 393:537-544(1998).
                                                                                                                                                                                                                                                                                                                                                                                               modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                             Hypothetical protein; SEQUENCE 715 AA; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
STRAIN-CDC 1551 / Oshkosh;
Fleischmann R.D., Alland D., Eisen J.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Corynebacterineae; Mycobacteriaceae; Mycobacterium. NCBI_TaxID=1773;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence up
128-FEB-2003 (Rel. 41, Last annotation
Hypothetical protein Rv1355c.
RV1355C OR MT1398 OR MTCY02B10.19C.
                                                                                                                                                                                           InterPro; IPRO00594; ThiF_domain.
Pf4am; PF00899; ThiF; 1.
Hypothetical protein; Complete pr
SEQUENCE 715 AA; 78181 MW; 45
                                                                                                                                                                                                                                                                            TubercuList; Rv1355c;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         laboratory strains.";
Submitted (APR-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fleischmann R.D., Alland D., Eisen J.A., Carpenter L., White O., Peterson J., DeBoy R., Dodson R., Gwinn M.L., Haft D., Hickey E., Kolonay J.F., Nelson W.C., Umayam L.A., Ermolaeva M.D., Salzberg Delcher A., Utterback T., Weidman J., Khouri H., Gill J., Mikula
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN-H37Rv;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     between
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Whole genome comparison of Mycobacterium tuberculosis clinical and
                                                                                                                                                                                                                                                                                                                   ; 275555; CAA99988.1; -
; AE007012; AAK45661.1;
B70741; B70741.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SWISS-PROT entry is copyright. It is produced through a centre the Swiss Institute of Bioinformatics and the EMBL
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                                                                                                             Similarity
8; Conser
                                                                   PEAEPIMI - - LKKWPWWPWRR 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   non-profit institutions as long as its content
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                            PQPDPDLLEEAKRWAYYPWRR
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38.1%;
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                                                                                                                              Pred.
                                                                                                                                                  Score 55;
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455495248A56041C CRC64;
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                                                                                                                              No. 19;
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                                                                                                      RESULT 10
SYC1_MYCTU
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P96862;
15-JUL-1998
15-JUL-1998
15-SEP-2003
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Query Match
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Matches 11
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P35581; P11525; P11526;
O1-OCT-1989 (Rel. 12, Created)
O1-TUN-1994 (Rel. 29, Last sequence upda
28.FEB-2003 (Rel. 41, Last annotation up
Apidaecin precursor, type 22,
Apis mellifera (Honeybee).
Ebkaryota; Metazoa; Arthropoda; Hexapoda
Neoptera; Endopterygota; Hymenoptera; Apis
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PROPEP
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MEDLINE=93223697; PubMed=8467807;
MEDLINE=93223697; PubMed=8467807;
Casteels Josson K., Capaci T., Casteels P., Tempst
"Apidaecin multipeptide precursor structure: a puta
amplification of the insect antibacterial response.
                                                                    SYC1_MYCTU
                                                                                                                                                                                                                                                                                              SEQUENCE
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MEDLINE=90005446; PubMed=2676519;
Casteels P., Ampe C., Jacobs F., Vaeck M., Tempst P.;
Casteels P., Ampe C., Jacobs F., Vaeck M., Tempst P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; X72576; CAA51168.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the European Bioinformatics Institute.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Apidaecins: antibacterial peptides MBO J. 8:2387-2391(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nsect immunity;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FUNCTION: APIDAECINS HAVE BACTERICIDAL ACTIVITY; PREDOMINANTLY AGAINST GRAM-NEGATIVE BACTERIA. THEY SEEM TO INTERFERE WITH CEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROPAGATION.
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                                                                                                                                                                                         PWWPWRRKHEAEPEAEP
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(Rel.
(Rel.
(Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nity; Antibiotic; Hemolymph; Signal; Multigene family;
pair of basic residues; Repeat.
                                                                                                                                                                                                                                                                                            144 AA;
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20
43
63
71
91
                                                                    STANDARD;
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116
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gota; Hymenoptera; Apocrita; Aculeata; Apo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           license agreement
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64.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   laboratory strains.";
Submitted (APR-2001) to the EMBL/GenBank/DDBJ
-!- CATALYTIC ACTIVITY: ATP + L-cysteine + tR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HAMAP: MF_00041; -; 1.
InterPro; IPR002308; Cys_trNA-synt_1a.
InterPro; IPR001412; tRNA-synt_I.
Pfam; PF01406; tRNA-synt_1e; 1.
PRINTS; PR00983; TRNASYNTHCYS.
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                                                                                                                                                                                                                                                                                                                                                                          Complete
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Kolonay J.F., Nelson W.C., Umayam
Delcher A., Utterback T., Weidman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN=CDC 1551 / Oshkosh;
Fleischmann R.D., Alland D., Eisen J.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=98295987;
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CYSS1 OR CYSS OR RV3580C C
                                                                                                                                                                                                                                                                                                                                                                                                            Aminoacyl-tRNA synthetase;
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                                                                                                                                                                                                                                                                                                                                                                                                                                        Whole genome comparison of Mycobacterium tuberculosis clinical and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 diphosphate + L-cysteinyl-tRNA(Cys).
SUBUNIT: Monomer (By similarity).
SUBCELLULAR LOCATION: Cytoplasmic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY: Belongs to class-I aminoacyl-tRNA synthetase Strong, to methionyl-tRNA synthetase.
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                                                                                                    Similarity
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an email to license@isb-sib.ch).
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                                                                     Conservative
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                                                              Pred. No. 17;
0; Mismatches
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D -> E (IN REF. 2).
; 515F9D19482ADC0E C
                                                                                                                                Score 54;
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   -AEPEAEP
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J., Khouri H.;
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L.A., Ermolaeva M.D., Salzberg
J., Khouri H., Gill J., Mikula
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                                                                                                                                    DB
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RESULT 11
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Best Local S
Matches 10
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                                                                                                                                                                                                           BINDING
                                                                                                                                                                                                                                      SITE
                                                                                                                                                                                                                                                                                    Complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales; Corynebacterineae; Mycobacteriaceae; Mycobacterium.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cysteinyl-tRNA synthetase (CysRS 1).
                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF01406; tRNA-synt_le; 1
PRINTS; PR00983; TRNASYNTHCYS.
                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR002308; Cys_tRNA-synt_la
InterPro; IPR001412; tRNA-synt_I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HAMAP; MF_00041;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PIR; C86949;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; AL583918; CAC29831.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    use by non-profit institutions as long modified and this statement is not removed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Massive gene decay in the Nature 409:1007-1011(2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Squares S., S
Barrell B.G.;
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16-OCT-2001
                                                                                                                                                                                                                                                                                                          Aminoacyl-tRNA synthetase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>-</u>
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                                                                                                                                                                                                                                                                                                                                   PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             eproma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          European Bioinformatics Institute. The by non-profit institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBCELLULAR LOCATION: Cytoplasmic. SIMILARITY: Belongs to class-I aminoacyl-tRNA synthetase family.
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89
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PWWEWAATHERAFTAAYDALDVLPPSAEP
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270
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ier K., Parkhill J.,
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270
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tase 1 (EC 6.1.1.16) (Cysteine--tRNA ligase
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                                                                                                                                                                                       MW.
                                                                                                                                                                                                                                                                                                        Protein biosynthesis;
                                                                                                              Score 54;
Pred. No.
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); Mismatches
                                                                                                                                                                                                             ATP (BY SIMILARITY)
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P15423; P89
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MEDLINE=21109095; PubMed=11162792; Gallagher T.M., Buchmeier M.J.; "Coronavirus spike proteins in viral entry Virology 279:371-374(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=21262210; PubMed=11369870;
Thiel V., Herold J., Schelle B., Siddell S.G.;
"Infectious RNA transcribed in vitro from a cDNA
coronavirus genome cloned in vaccinia virus.";
J. Gen. Virol. 82:1273-1281(2001).
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01-APR-1990 (Rel.
15-SEP-2003 (Rel.
                                                                                                                                             INTERACTION.WITH ANPEP.

MEDLLINE=22521439; PubMed=12634402;

Breslin J.J., Mork I., Smith M.K., Vogel L.K., Hemmila E.M.

Bonavia A., Talbot P.J., Sjoestrom H., Noren O., Holmes K.V

"Human coronavirus 229E: receptor binding domain and neutra

soluble receptor at 37 degrees C.";
                                                                                                                                                                                                                                                                                                    Bonavia A., Zelus B.D., Wentworth D.E., Talbo
"Identification of a receptor binding domain
of human coronavirus HCOV-229E.";
J. Virol. 77:2530-2538(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PCR sequencing of the spike genes chronologically distinct human coro J. Virol. Methods 75:179-193(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Viral and cellular changes in a human cell 1: with human coronavirus HCOV-229E."; Submitted (FEB-2001) to the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human coronavirus (strain 229E) (HCoV-229E) Viruses; ssRNA positive-strand viruses, no Coronaviridae; Coronavirus.
                                                                                       REVIEW
                                                                                                                                                                                                                                                                                                                                                                                       INTERACTION WITH ANDEP MEDLINE=22440020; Pubm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Raabe T., Siddell S.; "Nucleotide sequence of the human coronavirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN=Isolate ATCC VR-74, Isolate MEDLINE=99086140; PubMed=9870593;
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"Nucleotide sequence of the gene encoding the spike glycoprotein human coronavirus HCV 229E.";
J. Gen. Virol. 71:1065-1073(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=11137;
                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=89366667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 1159-1173 FROM N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Isolate P11B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=90264837;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               unique regions
                                                                                                                                receptor at 37 degree
1. 77:4435-4438(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P89342;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Holmes K.V.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98-1113
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Res.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD; ; P89343;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14, Create
. 14, Last s
. 42, Last
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PubMed=2345367;
-Prinz B., Siddell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Stock,
                                                                                                                                                                                                                                                                                                                                                                                            PubMed=12551991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         173 FROM N.A.
PubMed=2701946;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      17:6387-6387(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Last sequence up
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Isolate P100E, Isolate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (Spike glycoprotein)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             coronaviruses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AND VARIANTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of geographically onaviruses 229E.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VARIANTS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cell line
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omain of the
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                    and
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                      pathogenesis.";
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                                                                                                                                                                                            K.V
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SIMILARITY: Contains 1 spike S1 domain.
SIMILARITY: Contains 1 spike S2 domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBUNIT: Homotrimer. I complex with M and HE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MISCELLANEOUS: In contrast to serogroup
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POLYMORPHISM: The strong variation between strains may affect the virulence of the vir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN: The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBCELLULAR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FUNCTION: Structural protein that makes spikes at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  fusion of viral
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The Leucine
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ins (By similarity).
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InterPro; IPR002552; Corona\_S2.
Pfam; PF01600; Corona\_S1; 1.
Pfam; PF01601; Corona\_S2; 1. CARBOHYD CARBOHYD CARBOHYD CARBOHYD DOMAIN TRANSMEM DOMAIN SIGNAL Coiled Virulence; L; Y09923; CAA710 L; Y10051; CAA711 L; Y10052; CAA711 L; X15654; CAA336 L; X34766; VGIHHC. AF304460; AAG48592.1; -. AF344186; AAK32188.1; -. AF344187; AAK32189.1; -. AF344188; AAK32190.1; AF344189; AAK32191.1; X16816; CAA34723.1; coil. 1 16 1116 1136 1136 32 417 537 1054 Glycoprotein; CAA71056.1; -.; CAA71146.1; -.; CAA71147.1; -. CAA33680.1; 15 1173 1115 1115 1135 1173 536 547 11103 11102 11157 1157 62 62 147 177 177 177 1220 224 3326 3263 333 3440 440 440 542 Envelope protein; Transmembrane; Signal; N-LINKED CYS-RICH COILED COIL CYTOPLASMIC N-LINKED N-LINKED LEUCINE INTERACTION WITH ANPEP SPIKE S2. POTENTIAL EXTRACELLULAR GLYCOPROTEIN S1 ZIPPER-LIKE (GLCNAC (POTENTIAL) (POTENTIAL) (POTENTIAL) HEPTAD REPEATS (POTENTIAL). (POTENTIAL). (POTENTIAL). (POTENTIAL). (POTENTIAL). (POTENTIAL). (POTENTIAL) (POTENTIAL) (POTENTIAL) (POTENTIAL) (POTENTIAL) (POTENTIAL) POTENTIAL)

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p100E and ATCC VR-74).

S -> A (in isolate A162).

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V -> A (in isolate P100E).

V -> A (in isolate P100E).

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      R GO; GO:0006629; P:Lipid metabolism; TAS.
R GO; GO:0006629; P:Lipid metabolism; TAS.
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R GO; GO:0008217; P:regulation of blood pressure; TAR
R InterPro; IPR001314; Chymotrypsin.
R InterPro; IPR001314; Chymotrypsin.
R InterPro; IPR001272; LDL_receptor_A.
InterPro; IPR001254; Ser_protease_Try.
R InterPro; IPR001190; Srcr_receptor.
R InterPro; IPR001190; Srcr_receptor.
R InterPro; IPR001392; FZ; 2.
Pfam; PF001392; FZ; 2.
R Pfam; PF001392; FZ; 2.
R Pfam; PF00089; trypsin; 1.
R Pfam; PF00189; trypsin; 1.
R PFANTS; PR000721; LDLARECEPTOR.
R Pfam; SMO01722; CHYMOTRYPSIN.
R PRINTS; PR00261; LDLARECEPTOR.
R SMART; SM00192; LDLA; 3.
SMART; SM00192; LDLA; 3.
SMART; SM00192; Tryp_SPC; 1.
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GO; G
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EMBL; AF113248; AAF21966.1;
HSSP; P00763; 1DPO.
MEROPS; S01.019; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  J. Biol. [2]
                                                                                                                                                                                                                                                                                                                                                                                                                  use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on it use by non-profit institutions as long as its content is in no way.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Yan W., Wu F., Morser J., Wu Q.;
"Corin, a transmembrane cardiac serine protease,
natriuretic peptide-converting enzyme.";
Proc. Natl. Acad. Sci. U.S.A. 97:8525-8529(2000).
-!- FUNCTION: CONVERTS PRO-ANP TO ANP. CLEAVES PR
BETWEEN ARG-123 AND SER-124.
-!- SUBCELLULAR LOCATION: Type II membrane protei
-!- TISSUE SPECIFICITY: HIGHLY EXPRESSED IN HEART
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=99262646; PubMed=10329693; Yan W., Sheng N., Seto M., Morser J., "Corin, a mosaic transmembrane serine from human heart."; J. Biol. Chem. 274:14926-14935(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHARACTERIZATION.
MEDLINE=20359740; PubMed=10880574;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hooper J.D., Scarman A.L., Clarke B.E., No "Localization of the mosaic transmembrane heart myocytes.";
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Mammalia; Eutheria;
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SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1.
SIMILARITY: Contains 7 LDL-receptor class A d
SIMILARITY: Contains 2 frizzled (FZ) domains.
SIMILARITY: Contains 1 SRCR domain.
                                                                                                                                                                                                                                                                                   OPS; S01.019; -.; 605236; -.; 6050005887; C:integral to plasma membrane; TAS. G0:0007345; P:embryogenesis, and morphogenesis;
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J. Biochem.
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PS50287;
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PS01209;
PS50068;
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E converting enzyme) (Corin) (Low density lipoprotein receptor related E protein 4).

CRN OR LRP4.

Mus musculus (Mouse).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus.

NCBI_TaxID=10090;

(I)

SEQUENCE FROM N.A.

MEDILINE-98429596; PubMed=9756624;

YA novel low-density lipoprotein receptor-related protein with type II

"A novel low-density lipoprotein receptor-related protein with type II

"A novel low-density lipoprotein receptor-related protein with type II

"Biochem. 124:784-789(1998).

-I- FUNCTION: CONVERTS PRO-AMP TO ANP. CLEAVES PRO-AMP SPECIFICALLY

SUBCELLULAR LOCATION: Type II membrane protein.

-I- SIMILARITY: Contains 7 LDL-receptor class A domains.

-I- SIMILARITY: Contains 2 frizzled (FZ) domains.

-I- SIMILARITY: Contains 1 SRCR domain.
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MCD; MGI:134945; Lrp4.

MCD; MGI:134945; Lrp4.

InterPro; IPR001314; Chymotrypsin.

InterPro; IPR001217; LDL\_receptor\_A.

InterPro; IPR002172; LDL\_receptor\_A.

InterPro; IPR001254; Ser\_protease\_Try.

InterPro; IPR001290; Srcr\_receptor.

Pfam; PF01392; Fz; 2.

Pfam; PF00392; Fz; 2.

Pfam; PF00089; Ldl\_recept\_a; 6.

Pfam; PF00089; Ltypsin; 1.

PRINTS; PR00721; CHYMOTRYPSIN.

PRINTS; PR00726; LDLRECEPTOR.

SMART; SM00103; FRI; 2.

SMART; SM00103; FRI; 3.

SMART; SM00020; SR; 1.

SMART; SM00020; SR; 1.

SMART; SM00020; Tryp\_Spc; 1. EMBL; AB013874; BAA34371.1; PIR; JE0315; JE0315. HSSP; P00763; 1DPO. PS50038; FZ; 2.

PS01209; LDLRA\_1; 6.

PS50068; LDLRA\_2; 7.

PS00420; SRCR\_1; FALS:

PS50240; TRYPSIN\_DOM;

PS50240; TRYPSIN\_DOM; Serine protease; SRCR\_1; FALSE\_NEG SRCR\_2; 1.
TRYPSIN\_DOM; 1. TRYPSIN\_HIS; TRYPSIN\_SER; Transmembrane; LDL-RECEPTOR
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LDL-RECEPTOR SIGNAL-ANCHOR CYTOPLASMIC EXTRACELLULAR (POTENTIAL) (POTENTIAL) FALSE\_NEG (POTENTIAL). )R (TYPE-II MEMBRANE PROTEIN) CLASS CLASS CLASS CLASS CLASS Signal-anchor; D D D D > > > 7 6 5 <u>+</u>ω2+

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between
the Euro
                                                                                                    "Cloning of a higher-plant plastid omega-6 fatty acid desaturase cDN/ and its expression in a cyanobacterium."; plant physiol. 105:635-641(1994).

Plant physiol. 105:635-641(1994).

PIESECOND DOUBLEBOND IN THE BIOSYNTHESIS OF 16:3 AND 18:3 FATTY ACIDS, IMPORTANT CONSTITUENTS OF PLANT MEMBRANES. IT IS THOUGHT TO USE FERREDOXIN AS AN ELECTRON DONOR AND TO ACT ON EARTY ACIDS.
                                                                                                                                                                                                                                                                                                             01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation updat
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Yadav N.S.;
                                                                                                                                                                                                      WEDLINE=94345008; PubMed=8066133;
                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                               NCBI_TaxID=3847;
                                ESTERIFIED TO GALACTOLIPIDS, SULFOLIPIDS AND PHOSPHATIDYLGLYCEROL.
PATHWAY: POLYUNSATURATED FATTY ACID biosynthesis.

SUBCELLULAR LOCATION: CHLOROPLAST, MEMBRANE-BOUND (PROBABLE).
DOMAIN: THE HISTIDINE BOX DOMAINS MAY CONTAIN THE ACTIVE SITE
AND/ OR BE INVOLVED IN METAL ION BINDING.
SIMILARITY: BELONGS TO THE FATTY ACID DESATURASE FAMILY.
ween the
European
         SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation
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ProDom; PD001081;
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HISTIDINE BOX-2.
HISTIDINE BOX-3.
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OMEGA-6 FATTY ACID DESATURAS
                                           Mismatches
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Copyright (c) 1993 - 2003 Compugen Ltd.
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      O9y7v5 trichoderma
O9jh31 tt virus. o
O9duc4 tt virus. o
O91rd8 tt virus. o
O91rd8 tt virus. o
O928b7 chlamydia p
O9dt81 tt virus. o
O92707 tt virus. o
O8778 rattus norv
O8v7e2 tt virus. o
O8twg0 methanopyru
O94ci8 lycopersico
O8v7i1 tt virus. o
O9duc9 tt virus. o
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# ALIGNMENTS

Que Bes Mat Qy Db	RESULT ACCORD TO THE SULT ACCORD	
Query Match 29.3%; Score 70.5; DB 3; Best Local Similarity 29.0%; Pred. No. 2.3; Matches 9; Conservative 2; Mismatches 9;  Qy 4 KWPWWPWRRKHEAEPEAEPINILKKWPWWPW 34                 Db 1185 RWQWWSWPRRGRG	SULT 1  YOYYV5  PRELIMINARY;  PRT; 1245 AA.  09Y7V5;  01-NOV-1999 (TrEMBLrel. 12, Last sequence upd 01-NOV-1999 (TrEMBLrel. 23, Last annotation u Conidiospore surface protein.  Trichoderma harzianum.  Eukaryota; Fungi; Ascomycota; Pezizomycotina; Hypocreales; mitosporic Hypocreales; Trichode NCBI_TaxID-5544;  [1]  SEQUENCE FROM N.A.  STRAIN-ATCC 32173; MEDLINE-99343881; PubMed-10413618; MEDLINE-99343881; PubMed-10413618; Puyesky M., Benhamou N., Ponce Noyola P., Bau Van Montagu M., Herrera Estrella A., Horwitz "Developmental regulation of cmpl, a gene enc Conidiospore surface protein of Trichodema." Fungal Genet. Biol. 27:88-99(1999).  EMBL; AJ133551; CAB40845.1; - HSSP; PD1180; 1PR0016188; Claudin_sup. InterPro; IPR0016188; Claudin_sup. InterPro; IPR001618; Claudin_sup. InterPro; IPR001618; Claudin_sup. PROSITE; PS01346; CLAUDIN; 1.  SEQUENCE 1245 AA; 135824 MW; 3249C749AFA0	
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                                                            Pfam; PF(
PROSITE;
SEQUENCE
                                                                                                                                                                                                Kishimoto J., Tanaka T., Tawara A., Peng Y., Ta "Species-specific TT viruses in humans and nonhum phylogenetic relatedness.";
Virology 27:368-378 (2000).
EMBL; AB041959: PARTONIA
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InterPro; IPR004219; TTvirus_Unk.
Pfam; PF02956; TT_ORF1; 1.
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01-MAR-2001
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                                                                                                                                                                      interPro;
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                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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                                                   AB041959; BAB19313.1; -.
Pro; IPR001563; Serine_carbpept.
Pro; IPR004219; TTvirus_Unk.
PF02956; TT_ORF1; 1.
TE; PS00131; CARBOXYPEPT_SER_SER; 1.
NCE 723 AA; 85393 MW; 232D003098766344
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01-OCT-2002
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01-MAR-2001
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                                                                                                                                                                     STRAIN-TYM9
                                                                                                                                                                                          Viruses; ssDNA viruses; NCBI_TaxID=68887;
                                                                                                                                                                                                                                                                                                                                                                          Liu Z.H., Luo K.X., Hu J., He H.T.;
Submitted (APR-2001) to the EMBL/GenBank/DDBJ
EMBL; AF373.30; AAK54733.1; -.
InterPro, IPR004219; Tvirus_Unk.
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CPN0426 OR CPJ0426 OR CP0327
Chlamydia pneumoniae (Chlamydophila pneumoniae).
Bacteria: Chlamydiae; Chlamydiales; Chlamydiaceae; Chlamydophila.
                 MEDLINE-20568739; PubMed-11118348; Okamoto H., Nishizawa T., Tawara A Sai T., Sugai Y.;
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Q63778; O1-NOV-1996 (TrEMBLrel. 01, Crea
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01-MAR-2003 (TrEMBLrel. 23, Last
Hypothetical 43.7 kDa protein.
Rattus norvegicus (Rat).
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EMBL; ABO50448; BAE19928.1; -
Interpro; IPR004219; TTVirus_Unk.
Pfam; PF02956; TT_ORF1; 1.
SEQUENCE 748 AA; 88552 MW; D6
                                    D'Ambrosio E; Waitzkin S.D., Witney F.R., "Structure of the highly repeated, long in or LIRn) of the rat.";
MOI Cell Biol 6:411-424(1986).
                                                                                                                                Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia;
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Pfam; PF02956; Trico
750 AA;
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Virology 288:358-368(2001).
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MEDLINE=21488921; PubMed=11601907;
Okamoto H., Nishizawa T., Takahash
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        InterPro; IPR0005
PROSITE; PS00213;
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InterPro; IPR000566; Lipo
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                            SQUENCE FROM N.A.

STRALN=AV19 / DSM 6324 / JCM 9639;

MEDLINE=21927647; PubMed=11930014;

Slesarev A.I., Mezhevaya K.V., Makarova K.S., Polushin N.N.,

Shcherbinina O.V., Shakhova V.V., Belova G.I., Aravind L.,

Natale D.A., Rogozin I.B., Tatusov R.L., Wolf Y.I., Stetter K

Malykh A.G., Koonin E.V., Kozyavkin S.A.;

"The complete genome of hyperthermophile Methanopyrus kandler and monophyly of archaeal methanogens.";

Proc. Natl. Acad. Sci. U.S.A. 99:4644-4649(2002).

EMBL; AE010396; AAM0228B.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 classifiable into the fourth an viremic infants.; Arch. Vizol. 147:21-41(2002). EMBL; AB064615; BAB79374.1; InterPro; IPR004219; TTvirus_Un Pfam; PF02956; TT_ORT; 1.
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01-JUN-2002 (TrEMBLrel.
01-OCT-2002 (TrEMBLrel.
                                                                                                                                                                                                                            Methanopyrus.
NCBI_TaxID=2320;
                                                                                                                                                                                                                                                            Archaea;
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01-MAR-2002
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01-OCT-2002 (TrEMBLrel.
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awa T., Takahashi
                           SIR2.
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EMBL;
        "Analysis of the complete gen classifiable into the fourth viremic infants.";
Arch. Virol. 147:21-41(2002).
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                                                                                                                                                                                                                                                            TT virus.
Viruses; s
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                                                                         Okamoto H.;
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EMBL; AY026037; AAK08984.1; -
InterPro; IPR002952; Eggshell.
PRINTS; PR01228; EGGSHELL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Viridiplantae; Streptophyta; Em
Spermatophyta; Magnoliophyta; eudicotyledo
Asteridae; lamiids; Solanales; Solanaceae;
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eudicotyledons; core eudicots;
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01-FEB-1997
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SEQUENCE
DeMartini J.C.;

DeMartini J.C.;

"Biological and genetic changes in ovine lentivirus strains following 
"Biological and genetic changes in ovine lentivirus strains following 
"assage in isogeneic twin lambs.";
                                                                                                Ovine lentivirus.
Viruses; Retroid viruses;
NCBI_TaxID=11663;
                                                                                                                                                                                        Q98414
Q98414;
                                                                                                                                                                                                                                                                                                                                         phylogenetic relatedness.";
Virology 277:368-378(2000).
EMBL; AB041957; BAB19308.1; .
InterPro; IpR004219; Trvirus_Unk.
Pfam; PF02956; TT_ORF1; 1.
SEQUENCE 735 AA; 86132 MW; 9E
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                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                  Okamoto H., Nishizawa T.,
                                          Woodward T.M., Carlson J.O.,
                                                     MEDLINE=95135990; PubMed=7834396;
                                                                  STRAIN=85/34
                                                                                                                                            Envelope
                                                                                                                                                                                                                                                                                                                                                                                                                         Kishimoto J.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=Pt-TTV6;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Viruses; ssDNA viruses;
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01-MAR-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=20534983; PubMed=11080484;
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Pfam; PF02956; TT_ORF1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                            kamoto H., Nishizawa T., Tawara A., Peng Y., Takahashi M.,
Ishimoto J., Tanaka T., Miyakawa Y., Mayumi M.;
Species-specific TT viruses in humans and nonhuman primate
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Search completed: July 29, Job time: 62.8219 secs
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STRAIN=85/34;
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                                 223
                                                                  163 ILKRVYKQDWPWNTYHWPLWQMENMRQWMKENEREYKGRTNKTKEDIDDLLAGKIRGRFC 222
                                                  22
                                                                                   1 ILKK-----WPW----WP-----WRRKHEAEPEAE-
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18; Conserv
                                 VPYPFALLKCTKWCWYP
                                                 ---PIMILK--KWPWWP 33
                                                                                                                                      985 AA;
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        2003, 16:34:24
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Result
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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DB seq length: 2000000000
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1 ILRWPWWPWF
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143.272 Million cell updates/sec
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Gapop 10.0 , Gapext 0.5
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18 EAEDIMILKKWPWWPWRR 35   : :::          126 ELQSVILPWKWPWWPWRR 143	Query Match 33.1%; Score 78; DB 1; Best Local Similarity 55.6%; Pred. No. 0.0097; Matches 10; Conservative 4; Mismatches 4	A; Residues: 131-143 (SEL)  A; Residues: 131-143 (SEL)  A; Residues: 131-143 (SEL)  A; Note: sequence extracted from NCBI backbone (NCBIP C; Superfamily: cathelin; cystatin homology C; Keywords: amidated carboxyl end F; 1-29/Domain: signal sequence #status predicted <si #status="" 22-129="" 30-130="" <cys9-f;="" <pro="" cystatin="" domain:="" f;="" homology="" predicted="" propeptide="">F; 131-143/Product: indolicidin #status experimental F; 143/Modified site: amidated carboxyl end (Arg) (am</si>	Residues: 1-144 <sal> Residues: 1-144 <sal> Cross-references: EMBL:X67340; NID:9462; Experimental source: bone marrow Experimental Source: bone marrow Bisted, M.E.; Novothy, M.J.; Morris, W.L Bisted, Chem. 267, 4292-4295 1992 Title: Indolicidin, a novel bactericidal Reference number: A42387; MUID:92165771; Reference number: A42387; MUID:92165771;</sal></sal>	SULT 1 122 122 dolicidin precursor - bovine Alternate names: antimicrobial peptide Species: Bos primigenius taurus (cattle) Date: 10-Sep-1999 #sequence_revision 10-S Accession: JC1222; A42387; S25664 del Sal, G.; Storici, P.; Schneider, C.; ochem. Biophys. Res. Commun. 187, 467-472 Title: cDNA cloning of the neutrophil back Reference number: JC1222; MUID:92392368; Accession: JC1222 Molecule tyne. mBNA	ALIGNMENTS	30 53 22.5 107 2 T35634 31 53 22.5 314 2 S43916 32 53 22.5 406 2 H69143 33 53 22.5 480 2 DC7552 34 53 22.5 691 2 DC7552 35 53 22.5 691 2 E75392 36 53 22.5 949 2 E75392 37 53 22.5 2292 1 GNNYED 37 53 22.5 2292 1 GNNYED 38 53 22.5 2292 2 S55401 39 52.5 22.2 295 2 G90934 41 52.5 22.2 295 2 C85783 42 52.5 22.2 295 2 E64933 43 52.5 22.2 295 2 E64933 44 52.5 22.2 448 2 D85362
	1; Length 144; 097; 4; Indels 0; Gaps 0;	d 21 O	PIDN:CAA47755.1; PID:g463 .; Tang, Y.Q.; Smith, W.; Cullor, J.S. tridecapeptide amide from neutrophils. PMID:1537821	ep-1999 #text_change 10-Sep-1999 Romeo, D.; Zanetti, M. , 1992 tericidal peptide indolicidin. pMID:1520337		hypothetical prote hypothetical prote coenzyme F420·redu shb·like adapter p hypothetical prote glycine cleavage s genome polyprotein capsid polyprotein h+transporting tw probable excinucle probable excinucle hypothetical prote conserved hypothet probable omaga-6 d hypothetical prote

RESULT 2
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R;Shirai, M.; Hirakawa, H.; Kimoto, M.; Tabuchi, M.; Kishi, F.; Ouchi, K.; Shiba, A;Title: Comparison of whole genome sequences of chlamydia pneumoniae
A;Reference number: A86491; MUID:20330349; PMID:10871362

Τ.,

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A;Note: host Homo sapiens (man)
C;Date: 28-Aug-1985 #sequence_revision 28-Aug-1985 #text_change 16-Jul-1999
C;Accession: A03906; JN0383
R;Palmenberg, A.C.; Kirby, E.M.; Janda, M.R.; Drake, N.L.; Duke, G.M.; Potratz, K.F.; Cc Nucleic Acids Res. 12, 2969-2985, 1984
A;Title: The nucleotide and deduced amino acid sequences of the encephalomyocarditis via A;Reference number: A03906; MUID:84169586; PMID:6324136
                                                                                                                                                                                                                                                                                                                                                                                     genome polyprotein - encephalomyocarditis virus N;Contains: coat protein VP1; coat protein VP2; coat p EC 3.4.-.); RNA-directed RNA polymerase (EC 2.7.7.48)
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A; Residues: 1-192 < REA>
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A;Reference number: A81500; MUID:20150255; PMID:10684935
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nucleic Acids Res. 28, 1397-1406,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Cross-references: GB: AE001625; GB: AE001363; NID: 94376695; PIDN: AAD18570.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R; Kalman,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C; Accession: D72081; G81589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N;Alternate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                conserved
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Accession: H86543
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-192 <STO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Cross-references:
;Molecule type: genomic RNA;Residues: 1-2290 <PAL>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;Cross-references: GALO29;Experimental source: strain CALO29;Experimental source: strain CALO29;Read, T.D.; Brunham, R.C.; Shen, C.; Gill, S.R.; Heidelberg, J.F.; White, ;Read, T.D.; Brunham, R.C.; Shen, C.; Gill, S.R.; Kolonay, J.; McClarty, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, M.; McCl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     onserved hypothetical protein frameshifted CP0327 [imported] - Chlamydophila ;Alternate names: hypothetical protein CT277 homolog ;Species: Chlamydophila pneumoniae, Chlamydia pneumoniae; Chlamydia pneumoniae; Date: 23-Apr-1999 #sequence_revision 23-Apr-1999 #text_change 11-May-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CPn0426;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      138
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPWLPKKRQIEKLPKGEGICFLSAYP 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPWWPWRRKHEAEPEAEPIMILKKWP 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPWLPKKRQIEKLPKGEGICFLSAYP 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPWWPWRRKHEAEPEAEPIMILKKWP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CP0327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GB:BA000008; NID:98978798; PIDN:BAA98634.1; GSPDB:GN00142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W.; Marathe, R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26.7%;
42.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26.7%;
42.3%;
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Pred. No. 0.96
4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4;
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Pred. No. 0.96;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                              EMCV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 2;
0.96;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NID:g7189246; PIDN:AAF38182.1; PID:g71892
                                                                                                                                                                                                                                                                                                                                                                                                                              .coat protein VP3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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                                                                                                                                                                                                                                                                                                                                                                                                                          coat protein VP4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          White,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
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                                                                                                                                                                C;Species: Streptomyces coelicolor
C;Date: 03-Dec-1999 #sequence_revi
                                                                                             R;Oliver,
                                                                                                                           C; Accession: T36208
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                        submitted to
                                                                                                                                                                                                                                hypothetical protein SCE36.09 - Streptomyces coelicolor
                                                                                                                                                                                                                                                                                T36208
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F;392-622/Product: coat protein VP3 **status predicted <VP3>
F;623-910/Product: coat protein VP1 **status predicted <VP1>
F;911-1056/Product: core protein P2-A **status predicted <P2A>
F;1057-1192/Product: core protein P2-B **status predicted <P2B>
F;1193-1517/Product: core protein P2-C **status predicted <P2C>
F;1193-1517/Product: core protein P2-C **status predicted <P2C>
F;1518-165/Product: core protein P3-A **status predicted <P3A>
F;1606-1625/Product: genome-linked protein VPg **status predicted <P3A>
F;1606-1625/Product: protein P3-A **status predicted <P3A>

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: genomic RNA
A; Residues: 1337-1396,'L',1398-1517,'A',1519-1536,'E',1538-1556,'S'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Title: Nucleotide sequence A; Reference number: JN0383; N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bioorg. Khim.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references: GB:M54935
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                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                  26.1%;
1 Similarity 27.3%;
12; Conserva+*...
RAPWNPWKNTYQAVLRAEPCRVTMDIYYKRVRPFRLPLVQKEWP 1008
                                                                                                                                         RWPWWPWRRKHEAEPEAEPI ---
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0, 274-279, 1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RNA-directed RNA polymerase #status predicted
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                                                                                                                                                                                                                                                                                  Score 61.5; I
Pred. No. 20;
6; Mismatches
                                                                                                                                                                                                                                                                                                 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 1;
                                                                                                                                         MILKKWP 29
                                                                                                                                                                                                                                                                                         9;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 2290;
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                                                                                                                                                                                                                                                                                  17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <VPG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <RDP>
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A; Molecule type: DNA A; Residues: 1-381 <STO> R; Nierman, W.C.; Feldbl B.; Laub, M.T.; DeBoy, C;Date: 20-Apr-2001 #sequence\_revision 20-Apr-2001 #text\_change 20-Apr-2001 A;Cross-references: GB:AE005673; C; Accession: hypothetical protein CC1782 [imported] - Caulobacter crescentus C; Species: Caulobacter crescentus A;Status: preliminary Query Match Local 170 σ 10; Similarity B87470 WWP----WRRKHEAEPEAEPIMILKKW Conservative 25.4%; NID:g13423210; Score 60; Pred. No. Mismatches 28 I.T.; Nelson, K.E.; Eisen, J.; Heidelberg, Durkin, A.S.; Gwinn, M.L.; Haft, D.H.; Ko 4 DB 6 2; PIDN:AAK23758.1; Indels 4; GSPDB: GN00148 1.

.; Harris, D.; Bentley, S.D.; Parkhill, o the EMBL Data Library, May 1999 number: Z21601

J.;

Barrell,

B.G.; 03-Dec-1999

Rajandream,

#text\_change

#sequence\_revision

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C:Accession: Ebo44,
R:Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Naul, C.,
R:Theologis, A.; Ecker, J.R.; Connay, A.B.; Conway, A.R.; Creasy, T.
Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.
ansen, N.F.; Hughes, B.; Huizar, L.
Nature 408, 816-820, 2000
A; Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khay)
C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Mait:
Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
A; Authors: Salzberg, S.L.; Schwartz, J.R.; Shnn, P.; Southwick, A.M.; S
ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.
A;Title: Sequence and analysis of Chromosome 1 of the plant Arabidopsis.
                                                                                                                                                   A; Title: Complete nucleotide sequence of a A; Reference number: S30400; MUID: 93106972; A; Accession: S30401
                                                                                                                                                                                                                             hypothetical protein 2 - Streptomyces c; Speckes: Streptomyces clavuligerus C; Date: 30-Apr-1998 #sequence_revision C; Accession: $30401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
A; Residues: 1-95 <STO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein F5D14.5 [imported] - Arabidopsis thaliana
C;Speckes: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001
C;Accession: E86447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                               A;Start codon:
                                                                                                        A; Cross-references: EMBL: X54107;
                                                                                                                        A; Molecule type: DNA
A; Residues: 1-451 <WUX>
                                                                                                                                                                                            R; Wu, X.; Roy, K.L.
J. Bacteriol. 175, 37-52,
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Best Local S
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                                                                             plasmid pSCI
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10; Conserv
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15; Conser
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21.3%;
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No. 1
               No.
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PMID:8416908
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1.4;
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               DB 2;
7.3;
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 4.
                              Length 451;
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 38;
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Maiti, R.; Ma
Gaps
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submitted to the EMBL Data Library,
A; Reference number: Z21938
A; Accession: T40591

January

1999

Rajandream, M.A.;

Barrell,

В.

A; Molecule type: DNA A; Residues: 1-376 <SI

<SEE>

EMBL:AL035216;

PIDN:CAA22819.1;

GSPDB:GN00067; SPDB:SPBC646.15c

A; Status: preliminary; translated

from GB/EMBL/DDBJ

A; Cross-references:

RESULT T40591

hypothetical protein SPBC646.15c C; Species: Schizosaccharomyces pomt C; Date: 03-Dec-1999 #sequence\_revis

pombe

#sequence\_revision 03-Dec-1999 #text\_change 04-Mar-2000

fission yeast (Schizosaccharomyces pombe)

Accession: T40591

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RESULT
C40046
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                                                                                                                                                 A;Reference number: A40046; MUID:91347376; PMID:1878971
A;Acession: C40046
                                                                                                                                                                                                             antibiotic transport-associated protein actII-3 - C;Species: Streptomyces coelicolor C;Date: 30-Jun-1992 #sequence_revision 30-Jun-1992 C;Accession: C40046.
R;Fernandez_Moreno, M.A.; Caballero, J.L.; Hopwood
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C:Species: Synechocystis sp.
                                                                                                           A; Cross-references: GB: M64683; NID: g153143;
                                                                                                                           A; Molecule type: DNA
A; Residues: 1-711 <FER>
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A; Residues: 1-485 <KAN>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C; Accession: S74708
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9; Conserv
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RWVFWPARPKHGTEPD
                          RWPWWPWRRKHEAEPE
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                                                      Conservative
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ide sequence was submitted
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Shimpo, S.;
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                                                                   24.6%;
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Takeuchi, C.; W
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                                                                   Score 58;
Pred. No.
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Pred. No.
                                                      Mismatches
                                                                                                                                                                                                             J.L.; Hopwood,
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                                                                     16;
                                                                                                           PIDN:AAA26691.1; PID:g153146
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7.9;
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Wada, T.; V
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                                                                                                                                                                                                                                                                     Streptomyces coelicolor
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                                                                               Length 711;
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Watanabe, A.;
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A; Experimental source: sti
C; Genetics:
A; Gene: SPDB:SPBC646.15c
A; Map position: 2
A; Introns: 49/1; 126/2; 31
C; Superfamily: Schizosacch
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C; Date: 28-Feb-1986 #sequence_revision
C; Accession: A03977
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F;101-656/Product: exterior membrane glycoprotein #status predicted <TMM>
F;567-982/Product: transmembrane glycoprotein #status predicted <TMM>
F;140,161,206,258,298,364,370,381,387,403,414,435,439,470,475,481,491,501,515,527,537,54
F;140,161,206,258,298,364,370,381,387,403,414,435,439,470,475,481,491,501,515,527,537,54
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                                                                                                                                                                                                                                 env polyprotein precursor - Maedi/Visna virus (strain KV1772) (provirus)
N;Alternate names: coat polyprotein
N;Contains: exterior membrane glycoprotein; transmembrane glycoprotein
C;Species: Maedi/Visna virus
A;Note: host Homo sapiens (man)
C;Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 16-Jul-19
C;Accession: E45390
R;Andresson, O.S.; Elser, J.E.; Tobin, G.J.; Greenwood, J.D.; Gonda, M.A.
J.W.; Petursson, G.
J.W.; Petursson, G.
J.Y.; Petursson, G.
A;Title: Nucleotide sequence and biological properties of a pathogenic properties in the properties in the properties of a pathogenic properties in the properties of a pathogenic properties in the properties in the properties in the properties in the properties of a pathogenic properties in the properties i
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A; Residues: 1-982 <SON>
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A; Gene: env
C; Superfamily: v
C; Keywords: caps
F; 1-100/Domain:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R;Sonigo,
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                                                                                                                                              A;Molecule type: DNA
A;Residues: 1-983 <AND>
A;Cross-references: GB:S55323; NID:g265825; PIDN:AAB25463.1; PID:g265830
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Best Local (
                       superfamily: visna lentivirus type E retrovirus env polyprotein; keywords: capsid protein; coat protein; glycoprotein; polyprote
                                                                                                                       Genetics:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              l Similarity
10; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Schizosaccharomyces
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Pred. No. 9.3;
         #status
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      n; glycoprotein; polyprotein; predicted <SIG>
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F;101-656/Product: exterior membrane glycoprotein #status predicted <EXT>
F;657-983/Product: transmembrane glycoprotein #status predicted <TMM>
F;836-852/Domain: transmembrane #status predicted <TMM>
F;140,161,206,258,298,364,381,387,403,414,435,439,470,475,481,491,501,515,527,537,542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C; Species: Synechocystis A; Variety: PCC 6803 C; Date: 25-Apr-1997 #sequ
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DNA Res. 3, 109-136, 1996
DNA Res. 3, 109-136, 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; Accession: S77448
R; Kaneko, T.; Sato,
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A; Cross-references: EMBL:D90905;
A; Note: the nucleotide sequence v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type:
A; Residues: 1-35
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A;Accession: S77448
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                                                                                      A;Gene: CESP:ZK899.2

A;Map position: X

A;Introns: 34/3; 143/2; 227/2; 262/3; 380/3

C;Superfamily: Caenorhabditis elegans hypothetical
                                                                                                                                                                                                                                                     submitted to the EMBL Data A; Reference number: Z20468
                                                                                                                                                                                                                                                                                                           C. Species: Caenorhabditis elegans
C. Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change
                                                                                                                                                                                           A; Molecule type: DNA
A; Residues: 1-452 <WIL>
                                                                                                                                                                                                                                  A; Accession: T28094
                                                                                                                                                                                                                                                                                 R;Kershaw,
                                                                                                                                                                                                                                                                                              C; Accession:
                                                                                                                                                                                                                                                                                                                                       hypothetical protein ZK899.2 - Caenorhabditis elegans
                                                                                                                                                                                                                                                                                                                                                         T28094
                                                                                                                                                                                                                                                                                                                                                                      RESULT 15
                                                                                                                                                              A; Experimental source:
                                                                                                                                                                             A; Cross-references:
                                                                                                                                                                                                                   A;Status: preliminary; translated
                                                                                                                                                                                                                                                  A; Reference number:
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10; Conserv
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Pred. No. 4
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Yamada, M.; Ya
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                     InterPro; IPR001676; Rhv.
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"The nucleotide and deduced amino acid sequences of the encephalomyocarditis viral polyprotein coding region.";
Nucleic Acids Res. 12:2969-2985(1984).
-I- FUNCTION: P3C POLYPEPTIDE IS A PROTEASE THAT CLEAVES AT CERT O/G SITES IN THE POLYPROTEIN. IT MAY BE A CYSTEINE PROTEASE.
-I- CATALYTIC ACTIVITY: Selective cleavage of Gln-1-Gly bond in
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Genome polyprotein [Contains: Coat proteins VP1 TO VP4; Core protein
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                                                                                                                                                                                                      Bentley S.D., Chater K.F., Cerdeno-Tarraga A.-M., Challis G.L., Thomson N.R., James K.D., Harris D.E., Quail M.A., Kieser H., Harper D., Bateman A., Brown S., Chandra G., Chen C.W., Collins M., Cronin A., Fraser A., Goble A., Hidalgo J., Hornsby T., Howarth S., Huang C.-H., Kieser T., Larke L., Murphy L., Oliver K., O'Neil S., Rabbinowitsch E., Rajandream M.A., Rutherford K., Rutter S., Seeger K., Saunders D., Sharp S., Squares R., Squares S., Taylor K. Warren T., Wietzorrek A., Woodward J., Barrell B.G., Parkhill J.,
                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                        coelicolor A3(2).";
Nature 417:141-147(2002).
                                                                                            -!- SUBCELLULAR LOCATION: I
                                                                                                                                                                                                    Hopwood D.A.;
                                                                                                                                                                                                                                                                                                                                                                         STRAIN=A3(2) / M145;
MEDLINE=21996410; PubMed=12000953;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Streptomyces.";
Cell 66:769-780(1991).
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Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;

Bacteria; Artinobacteria; Streptomycetaceae; Streptomyces.
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SEQUENCE
                                                                                                                                                                             "Complete genome
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30-MAY-2000 (Rel.
28-FEB-2003 (Rel.
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    Jast sequence update;
    Last annotation update;

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39, Last seq
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COAT PROTEIN VP2
COAT PROTEIN VP3
COAT PROTEIN VP1
CORE PROTEIN P2A
CORE PROTEIN P2C
CORE PROTEIN P2C
CORE PROTEIN P3A.
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PICORNAIN 3C (P22).
RNA-DIRECTED RNA POLYMERASE P3D (E).
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European Bioinformatics Institute.

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TRANSMEM
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P50655;
01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PIR;
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EMBL; AL939122; CAC44197.1;
                the European Bioinformatics Institute. There are no rest
use by non-profit institutions as content
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entities requires a license agreement (See http://www.isb
                                                                                                                                                                                                                                                                              STRAIN-Pekin breed; TISSUE-Liver;
MEDLINE-94047124; PubMed-8230253;
Ramirez V. Savoie P. Morais R.;
"Molecular characterization and e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TIGRFAMs;
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                                                                                                      This SWISS-PROT entry is copyright.
                                                                                                                                                                                                                                                                  genome."
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FUNCTION: THIS IS ONE OF THE CHAINS (CF(0) SUBUNIT) OF THE MITOCHONDRIAL (CF(0) SUBUNITY: ATP + H(2)O + H(-1)CATALYTIC ACTIVITY: ATP + H(-1)CATA
                                                                                                                                       SUBCELLULAR LOCATION:
SIMILARITY: BELONGS TO
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; IPR000731; SSD_5TM.
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; TIGR00833; actII; 1.
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                                                                                    the Swiss Institute of Bioinformatics
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NCBI_TaxID=11742;
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21-JUL-1986
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15-JUL-1999
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                                                                                                                                                                                                                                                                                                                  EMBL;
                                                                                                                                                                                                                                                              EMBL; A15114; CAA01216.
HIV; M10608; ENV$VLVCG.
                                                                                                                                                                                                                                                                                                                                                   entities requires a license agreement or send an email to license@isb-sib.ci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Braun M.J., Clements J.E., Gonda M.A.;
"The visua virus genome: evidence for a hypervariable gene and sequence homology among lentivirus envelope p J. Virol. 61:4046-4054(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sonigo P., Alizon M., Stasku
Retzel E., Tiollais P., Haas
"Nucleotide sequence of the
AIDS virus.";
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Pfam; PF00895; ATP-synt_8; 1
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M51543; -; NOT_ANNOTATED_CDS.
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0517; GP41;
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PDB; 1046; 2007.
InterPro; IPR000328; Env_GP41.
Pfam; PF00517; GP41; 1.
Glycoprotein; Coat protein; Polyprotein; Transmembrane; 3D-structure.
Glycoprotein; Coat protein; Polyprotein; PepTIDE.
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MEDITURE-93174981; PubMed-8382414;

MEDITURE-93174981; PubMed-8382414;

Andresson O.S., Elser J.E., Tobin G.J., Greenwood J.D., Gonda M.

Georgsson G., Andresdottir V., Benediktsdottir E., Carlsdottir

Maentylae E.O., Rainar B., Palsson P.A., Casey J.W., Petursson

"Nucleotide sequence and biological properties of a pathogenic

proviral molecular clone of neurovirulent visna virus.";

Virology 193:89-105(1993).
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01-JUN-1994
15-SEP-2003
                                                                                                                                                 EMBL; S55323; AAB25463.1;
EMBL; L06906; AAA48362.1;
PDB; 1JEK; 25-JUL-01.
                                                                                                                                                                                                                                                  was by non-profit institutions as long modified and this statement is not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch).
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Staskus K.A., Retzel E.F., Lewis E.D., Wietgrefe S.W., Staskus K.A., Retzel E.F., Lewis E.D., Geiser P.T., H. Cyr S., Rank J.M., Haase A.T., Fast D., Geiser P.T., H. Cyr S.H., Cook R., Lahti C.J., Neufeld T.P., Porter T
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 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harris Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekkaia F., Badcock K., Basham D., Brown D., Chillingworth T., Connor R., Davies R., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroyd Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L., Oliver S., Osborne J., Quail M.A., Rajandream M.A. Rogers J., Rutter S., Seeger K., Skelton S., Squares S., Squares R., Sulston J.E., Taylor K., Whitehead S., Barrell B.G.; "Deciphering the biology of Mycobacterium tuberculosis from the
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01-JUL-1993 (Rel. 26, Created)
01-JUL-1993 (Rel. 40, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
16-OCT-2001 (Rel. 40, Last annotation update)
Env polyprotein precursor (Coat polyprotein) (Contains: Surface protein; Transmembrane protein).
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[2]
                                                                                                                                                                                       REVISIONS.

Knowles D.P.;

Knowles D.P.;

Submitted (APR-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam;
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Peterson J., DeBoy R., Dodson R., Gwinn M.L., Haft
Kolonay J.F., Nelson W.C., Umayam L.A., Ermolaeva
Delcher A., Utterback T., Weldman J., Khouri H., (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN=CDC 1551 / Oshkosh;
Fleischmann R.D., Alland D.,
                               between the Swiss Institute of Bioinformatics the European Bioinformatics Institute. There a use by non-profit institutions as long as a modified and this statement is not removed. Us
                                                                                                                                                                                                                                                                                                                                                                           "Structure and genetic variability of envelope glycoproteins of antigenic variants of caprine arthritis-encephalitis lentivirus. J. Virol. 65:5744-5750(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A., AND SEQUENCE OF MEDILINE=92015464; PubMed=165067; Knowles D.P. Jr., Cheevers W.P., McGHarwood W.G., Stem T.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Caprine arthritis encephal Viruses; Retroid viruses; ROBI_TaxID=11662;
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a license agreement (See http://www.isb-sib.ch/announce/
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viruses; Retroviridae;
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M.L., Haft D., Hicl
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houri H., Gill J., I
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J., Mikula !
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                                                                  SEQUENCE FROM N.A.
MEDLINE=93223697; PubMed=8467807;
Casteels-Josson K., Capaci T., Ca
                                                                                                                                 Apidae; Apis.
NCBI_TaxID=7460;
                                  "Apidaecin multipeptide precursor structure: amplification of the insect antibacterial re
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                                                    Capaci T., Casteels P., Tempst P.;
tide precursor structure: a putative mechanism
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Matches 11
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PEPTIDE
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                                                                                                                                                      Casteels P., Ampe C., Jacobs F., Vac
"Apidaecins: antibacterial peptides
                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=90005446; PubMed=2676519;
                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE (APIDAECINS IA/IB)
TISSUE=Hemolymph;
                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                          FUNCTION: APIDAECINS
                                                                                                                                                                                                                                                                                                                      PROPAGATION.
                                                                                                                                                                                                                                                                                                                                 AGAINST GRAM-NEGATIVE BACTERIA.
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                                              Similarity
                  PWWPWRRKHEAEPEAEP
PTRPTRLRREAEPEAEP
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91
. 99
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127
                                       Conservative
                                                                           AA;
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70
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116
126
                                             22.9%;
64.7%;
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                                                                                                                                                                                                                                                                                                                                HAVE BACTERICIDAL ACTIVITY; PREDOMINANTLY E BACTERIA. THEY SEEM TO INTERFERE WITH CELL
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                  21
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Pred. No.
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                                                                          APIDAECIN IA. 6FA1AD74CB77108D CRC64;
                                                                                                       APIDAECIN
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des from honeybees.";
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01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Omega-6 fatty acid desaturase, chloroplast pr
                                                                                                                                                                                                                                                     SOYBN
                                                                                                                                                        Spermatophyta; Magnoliophyta; eurosids I; Fabales; Fabaceae;
                                                                                                    MEDLINE=94345008; PubMed=8066133;
Hitz W.D., Carlson T.J., Booth J.R. Jr.,
                                                                                                                       TISSUE=Seed
                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                               NCBI_TaxID=3847;
                                                                                                                                                                           Eukaryota; Viridiplantae;
                                                                                                                                                                                    Glycine max (Soybean)
                                                                                                                                                                                                                                 P48628;
                                                                                            ladav N.S.;
                                                                                                                                                                                                                                            SOYBN
                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                            Streptophyta;
                                                                                                                                                                                                                                             PRT;
                                                                                                                                                          eudicotyledons; core eudicots; Rosida
: Papilionoideae; Phaseoleae; Glycine.
                                                                                                                                                                                                                                             424
                                                                                                                                                                            Embryophyta;
                                                                                                                                                                                                                                             ΑA
                                                                                                     Kinney A.J.,
                                                                                                                                                                                               precursor (EC 1.14.19.-).
                                                                                                                                                                             Tracheophyta
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Best Local S
Matches 12
                                                                                                                 Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harl Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F., Badcock K., Basham D., Brown D., Chillingworth T., Connor R., bavies, R., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroy Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L., Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J., Rutter S., Seeger K., Skelton S., Squares S., Squares R., Sulston J.E., Taylor K., Whitehead S., Barrell B.G.; "Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This
                                                                                                                                                                                                                                                                                                                                                                                                  15-JUL-1998 (Rel. 36, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
Cysteinyl-tRNA synthetase 1 (EC 6.1.1.16) (Cysteine--tRNA ligase
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ProDom; PD001081; FA_desat_fam; 2.
Oxidoreductase; Fatty acid biosynthesis; Chloroplast; Membrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 modified and this statement is not removed entities requires a license agreement (See
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the
                         Peterson J., DeBoy R., Dodson R., Kolonay J.F., Nelson W.C., Umayam Delcher A., Utterback T., Weidman
                                                                 SEQUENCE FROM N.A.
STRAIN=CDC 1551 / Oshkosh;
Fleischmann R.D., Alland D
                                                                                                                                                                                                                                                                                                                                                                            CYSS1 OR CYSS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; L29215; AAA50158.1; -.
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                                                                                                                                                                                                                                                                      MEDLINE-98295987;
                                                                                                                                                                                                                                                                                    STRAIN=H37Rv;
                                                                                                                                                                                                                                                                                                                                      Corynebacterineae;
                                                                                                                                                                                                                                                                                                                                                 Mycobacterium tuberculosis. Bacteria; Actinobacteria; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                           P96862;
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L5-JUL-1998 (Rel.
L5-SEP-2003 (Rel.
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genome comparison of Mycobacterium tuberculosis clinical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            l Similarity 35.
12; Conservative
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. 36, Last sequ.
. 42, Last anno
                                                                                                                                                                                                                                                                     PubMed=9634230;
                                                                                                                                                                                                                                                                                                                                      Mycobacteriaceae;
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TO THE FATTY ACID DESATURASE FAMILY.
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HISTIDINE BOX-
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                       n J.A., Carpenter L., White O.,
Gwinn M.L., Haft D., Hickey E.,
L.A., Ermolaeva M.D., Salzberg
J., Khouri H., Gill J., Mikula
                                                                                                                                                                                                                                                                                                                                     Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       469
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CONFLICT
Cole S.T., Eiglméier K., Parkhill J., James K.D., Thomson N.R., Wheeler P.R., Honore N., Garnier T., Churcher C., Harris D., Mungall K., Basham D., Brown D., Chillingworth T., Connor R., Davies R.M., Devlin K., Duthoy S., Feltwell T., Fraser A., Hamlin N. Holroyd S., Hornsby T., Jagels K., Lacroix C., MacLean J., Moule S., Murphy L., Oliver K., Quail M.A., Rajandream M.A., Rutherford K.M., Rutter S., Seeger K., Simon S., Simmonds M., Skelton J., Squares R., Squares S., Stevens K., Taylor K., Whitehead S., Woodward J.R., Barrell B.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.lsb-sib.ch/announce/or send an email to license@isb-sib.ch).
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EMBL; AE007169; AAK48044.1;
PIR; B70607; B70607.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Entre European Bioinformatics Institute. There are no restricted the European Bioinformatics Institute.
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CYSS1 OR CYSS OR ML0323.
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InterPro: IPR001412; trNA-synt_I.
Pfam; PF01406; trNA-synt_le; 1.
PRINTS; PR00983; TRNASYNTHCYS.
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                                                                                                                                                                                                                                                                                                                             Corynebacterineae;
NCBI_TaxID=1769;
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Bacteria; Actinobacteria;
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16-OCT-2001 (Rel. 40, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
Cysteinyl-tRNA synthetase 1 (EC 6.1.1.16) (Cysteine--tRNA ligase
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                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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PROSITE; PS00178; AA_TRNA_LIGASE_I; FALSE_NEG
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SUBUNIT: Monomer (By similarity).
SUBCELLULAR LOCATION: Cytoplasmic.
SIMILARITY: Belongs to class-I aminoacyl-tRNA synthetase family.
Strong, to methionyl-tRNA synthetase.
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L outstation -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Massive gene decay in the
Nature 409:1007-1011(2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                     01-APR-1990 (Rel. 14, Created)
01-APR-1990 (Rel. 14, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
E2 qlycoprotein precursor (Spike glycoprotein)
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PRINTS; PR00983; TRNASYNTHCYS.
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                                                                                                                                                                                                                                                                                                                                  Human coronavirus (strain 229E) (HCOV-2;
Viruses; ssRNA positive-strand viruses,
Coronaviridae; Coronavirus.
NCBI_TaxID=11137;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CVH22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Leproma;
                                                                                                                                                                                Raabe T., Schelle-Prinz B., Siddell S.G.;
"Nucleotide sequence of the gene encoding human coronavirus HCV 229E.";
J. Gen. Virol. 71:1065-1073(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q990M4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P15423; P89342; P89343;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR002308; Cys_tRNA-synt_1a.
InterPro; IPR001412; tRNA-synt_I.
                                                             coronavirus
                                                                Thiel V., Herold J., Schelle B., Sidde "Infectious RNA transcribed in vitro f coronavirus genome cloned in vaccinia
                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE=90264837; PubMed=2345367;
                                                                                                                         MEDLINE=21262210;
  SEQUENCE
                                                                                                                                               SEQUENCE FROM N.A.
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SUBCELLULAR LOCATION: Cytoplasmic.
SIMILARITY: Belongs to class-I aminoacyl-tRNA synthetase
Strong, to methionyl-tRNA synthetase.
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                                         irus genome cloned in vacci
virol. 82:1273-1281(2001).
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    98-1113
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      AND VARIANTS
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                                                                                                            siddell s.G.;
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                                                                  from a cDNA virus.";
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MEDLINE-22440020; PubMed-12551991;
Bonavia A., Zelus B.D., Wentworth D.E.
"Identification of a receptor-binding
of human coronavirus HCOV-229E.";
J. Virol. 77:2530-2538(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hays J.P., Myint S.H.;
PCR sequencing of the spike genes
chronologically distinct human coro
J. Virol. Methods 75:179-193(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 98-1113 FROM N.A., AN STRAIN-ISOLATE ATCC VR-74, ISOLAT MEDLINE-99086140; PubMed-9870593;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    with human coronavirus HCOV-
Submitted (FEB-2001) to the
                                                                                                                                                                                                                                                                                                          MEDLINE=22521439; PubMed=12634402;
Breslin J.J., Mork I., Smith M.K., Vogel L.K., He
Bonavia A., Talbot P.J., Sjoestrom H., Noren O.,
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soluble receptor at 37 degrees C.";
J. Virol. 77:4435-4438(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 1159-1173 FROM N.A. MEDLINE-89366667; PubMed=2701946;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bonavia A.,
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Isolate PllB;
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                         or send
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                                                     modified and this statement
                                                                     This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in
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SUBUNIT: Homotriner. During virue
complex with warmer.
                                                                                                                                    from serogroup 1 is not cleaved.
SIMILARITY: Contains 1 spike S1
                                                                                                                                                                      DOMAIN: The Leucine zipper-like heptad reports of viral and cellular membranes. POLYMORPHISM: The strong variation between strains may affect the virulence of the virulence of the virulence.
                                                                                                                      SIMILARITY: Contains 1 spike S1 SIMILARITY: Contains 1 spike S2
                                                                                                                                                                                                                                 DOMAIN:
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human coronavirus HCoV-229E
                                                                                                                                                              MISCELLANEOUS: In contrast to serogroup
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 AF304460;
            X16816; CAA34723
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                                  an
                                             requires a
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                                equires a license agreement (email to license@isb-sib.ch)
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REMBL; AF344187; AAK32189.1; -.

REMBL; AF344189; AAK32190.1; -.

REMBL; AF344189; AAK32191.1; -.

REMBL; Y10051; CAA711056.1; -.

REMBL; Y10052; CAA71147.1; -.

REMBL; Y10052; CAA71147.1; -.

REMBL; X15654; CAA33680.1; -.

REMBL; X15654; CAA71147.1; -.

REMBL; X15654; CAA71146.1; -.

REMBL; X15654; CAA71146, CAA71146.1; -.

REMBL; X15654; CAA71147.1; -.

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CYTOPLASMIC (POTENTIAL).
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RN MEDLINE-22388234; PubMed-12471157;

RN MEDLINE-22388234; PubMed-12471157;

RN MEDLINE-22388234; PubMed-12471157;

RN MEDLINE-22388234; PubMed-12471157;

RN Melch R.A., Burland V., Plunkett G. III, Redford P., Roesch P.,

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RN Melch R.A., Burland V., Blattner F.R.;

RN Melch R.A., Burland V., Schwartz D.C., Perna N.T.,

RN Melch R.A., Burland V., Blattner F.R.;

RN Melch R.A., Burland V., Buntin F.R.;

RN Melch R.A., Burland V., Plunkett D.C., Perna N.T.,

RN Melch R.A., Burland V., Buntin A., Hackett D.C., Perna N.T.,

RN Melch R.A., Burland V., Buntin A., Hackett D.C., Perna N.T.,

RN Melch R.A., Burland V., Buntin A., Hacket H., Roesch P.,

RN Melch R.A., Burland V., Buntin A., Hacket H., Stroud D.,

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CHO_ECOL6
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15-SEP-2003 (Rel. 42, Created)
15-SEP-2003 (Rel. 42, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
15-SEP-2003 (Rel. 42, Last annotation update)
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Escherichia coli O6.

Escheria; Proteobacteria; G

Enterobacteriaceae; Escheri
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SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
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CC use by non-profit institutions as long as its content is in no way commodified and this statement is not removed. Usage by and for commercial comment is requires a license agreement (See http://www.isb-sib.ch/announce/CC or send an email to license@isb-sib.ch).

CC PREMEL; AR016761; ARN80599.1; -.

DR SMART; SM00465; GIVC; 1.

DR PROSITE; PS50164; UVRC_1; 1.

DR PROSITE; PS50164; UVRC_1; 1.

SOS response; Hydrolase; Excision nuclease; DNA repair; Work of the proteome.

WW DNA recombination; DNA excision; Complete proteome.

SO SEQUENCE 295 AA; 33694 MW; 9278739AB3E9130E CRC64;

Best Local Similarity 34.4%; Pred. No. 12;
Best Local Similarity 34.4%; Pred. No.
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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2: sp_bacteria
3: sp_fungi:*
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Q9DUC9
Q66765
Q8V7E2
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Q61427
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	070458 mus musculu	O88821 mus musculu	Q8uzk7 sen virus.	Q9jh33 tt virus. o	Q99b86 human immun	Q8lqu6 oryza sativ	Q9itu5 human immun	094516 schizosacch	Q8vi99 rattus norv	Q8ccf8 mus musculu	. Q99aq7 tt virus. o	Q9iu06 human immun	Q9iu37 human immun	Q8twg0 methanopyru	***	Q98414 ovine lenti	Q94ef3 oryza sativ		P72844 synechocyst	U1	Q9itu9 human immun	Q8ppu5 xanthomonas			Q9x8c2 streptomyce	caulobac	tt		. Q94ci8 lycopersico

## ALIGNMENTS

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В
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                                                                 Query Match
Best Local
                                                                                                       Puyesky M., Benhamou N., Ponce Noyola P., Bauw G., Zi
Van Montagu M., Herrera Estrella A., Horwitz B.A.;
"Developmental regulation of cmpl, a gene encoding a condiospore surface protein of Trichoderma.";
Fungal Genet. Biol. 27.88-99(1999).
EMBL; AJ133651; CAB40845.1; ...
HSSP; P01180; 1NPO.
InterPro; IPR006188; Claudin_sup.
InterPro; IPR006188; Claudin_sup.
InterPro; IPR001673; S_mold_repeat.
ProDom; PD000869; S_mold_repeat; 2.
PROSITE; PS01346; CLAUDIN; 1.
SEQUENCE 1245 AA; 135824 MW; 3249C749AFA0CDF8 CRC
                                                       Matches
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100-1999 (TrEMBLrel. 12, Created)

01-NOV-1999 (TrEMBLrel. 12, Last sequence update)

01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
STRAIN-ATCC 32173;
MEDLINE-99343881; Pubmed-10413618;
                                                                                                                                                                                                                                                                                                                                 Eukaryota; Fungi; Ascomycota; Pezizomycotina; Sordariomycetes; Hypocreales; mitosporic Hypocreales; Trichoderma. NCBI_TaxID=5544;
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1185 RWQWWSWPRRGRG----
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                          RWPWWPWRKHEAEPEAEPIMILKKWPWWPW 33
                                                       Conservative
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                                                                  31.1%; 32.3%;
-----CWQWWSW 1204
                                                  Score 73.5; D
Pred. No. 0.95
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01-MAR-2001
01-MAR-2003
                                                                                                                                                                                              Okamoto H., Nishizawa T., Tawara A., Pe
Kishimoto J., Tanaka T., Miyakawa Y., w
"Species-specific TT viruses in humans
                                             SEQUENCE
                                                                  PROSITE;
                                                                                    Pfam;
                                                                                                 InterPro; IPR001563; Serine_carbpept.
InterPro; IPR004219; TTvirus_Unk.
                                                                                                                                          Virology 277:368-378(2000).
EMBL; AB041959; BAB19313.1;
                                                                                                                                                                                 phylogenetic relatedness.";
                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. STRAIN=Mf-TTV9;
                                                                                                                                                                                                                                                            MEDLINE=20534983; PubMed=11080484;
                                                                                                                                                                                                                                                                                                                                                                 Okamoto H
                                                                                                                                                                                                                                                                                                                                                                                    STRAIN-Mf-TTV9;
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01-OCT-2000
01-OCT-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=68887;
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Iizuka H., Miyakawa Y., Mayumi M.;
"The entire nucleotide sequences of two distinct TT virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (JUN-1999) to the EMBL/GenBank/DDBJ databases
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TT virus.
TViruses; ssDNA viruses; unclassified ssDNA viruses.
NCBI_TaxID=68887;
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                                 PF02956; TT_ORF1; 1.
TE; PS00131; CARBOXYPEPT_SER_SER; 1.
NCE 723 AA; 85393 MW; 232D003098766344 CRC64;
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    28.4%;
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22,
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Miyakawa Y., Mayumi M.;
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  Score 67;
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Q9DT80;
01-MAR-2001
                                                                                                                   EMBL; AB050449; BAB19930.1; NON_TER 49
                                                                                                                                    Sai T., Sugai Y.;
"TT virus mRNAs detected in the bone marrow cells individual.";
individual.";
Pag Commun. 279:700-707(2000).
                                                                                                              SEQUENCE
                                                                                                                                                                   Okamoto H., Nishizawa
Sai T., Sugai Y.;
                                                                                                                                                                                      STRAIN=TYM9;
MEDLINE=20568739;
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01-DEC-2001
01-DEC-2001
01-OCT-2002
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01-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                            Liu Z.H., Luo K.X., Hu J., He H.T.;
Submitted (APR-2001) to the EMBL/GenBank/DDBJ databases
EMBL; AF371370; AAK54733.1; .
InterPro; IPR004219; TTvirus_Unk.
Pfam; PF02956; TT_ORF1; 1.
SEQUENCE 175 AA; 22073 MW; 5212D7DA3FD72F81 CRC64;
                                                                                                                                                                                                                                   Viruses; ssDNA viruses; unclassified ssDNA viruses
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zawa T., Tawara A.,
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Pred. No. 0.59;
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01-DEC-2001
01-OCT-2002
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Viruses; ssDNA viruses;
NCBI_TaxID=68887;
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NCBI_TaxID=68887;
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zawa T., Takahashi
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Ol-DEC-2001 (TrEMBLrel. 10, Last sequ
Ol-DEC-2001 (TrEMBLrel. 19, Last anno
CT277 SIMILARITY (CDJ0426 protein).
CPM0426 OR CPJ0426 OR CPJ0426
Chlamydia pneumoniae (Chlamydophila pr
Bacteria; Chlamydiae; Chlamydiales; Ch
NCBI_TaxID=83558;
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MGD; MG1:88467; COLIA1.
Interror; IPRO01007; VWE;
Pfam; PF00093; VWC; 1.
SMART; SM00214; VWC; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=99206606; PubMed=10192388; Kalman S., Mitchell W., Marathe R., Lammel C., Olinger L., Grimwood J., Davis R.W., Stephens "Comparative genomes of Chlamydia pneumoniae anat. Genet. 21:385-389(1999).
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Q9Z8B7;
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Mol. Cell. Biol. 14:5950-5960(1994).
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=20150255; PubMed=10684935; Read T.D., Brunham R.C., Shen C., Gill S.R., Heidelberg White O., Hickey E.K., Peterson J., Utterback T., Berry Linher K., Weidman J., Khouri H., Craven B., Bowman C., Gwinn M., Nelson W., DeBoy R., Kolonay J., McClarty G., Eisen J., Fraser C.M.;
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"Comparison of whole genome sequences of Chlamydia from Japan and CWL029 from USA.";
Nucleic Acids Res. 28:2311-2314/2000
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                                                                                                  Shirai M., Hirakawa H., Kimoto M., Tabu
Shiba T., Ishii K., Hattori M., Kuhara
                                                                                                                                                                                                                                                                                                                                                  "Genome sequences of Chlamydia trachomatis pneumoniae AR39.";
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Shirai M., Hirakawa H., Kimoto M.,
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Last annotation update)
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Pred. No.
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                                                                                                                                         Tabuchi M.,
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Chlamydiaceae; Chlamydophila.
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2.3;
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                                                                                                                                             Kishi F.,
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Ty K., Bass S.
The management of the second second
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Best Local S
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EMBL; AE002194; AAF38182.1; -
EMBL; AE002546; BAA98634.1; -
TIGR; CP0327; -
Complete proteome.
SEQUENCE 192 AA; 21464 MW;
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01-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE-20534983; PubMed-11080484; MEDLINE-20534983; PubMed-11080484; Okamoto H., Nishizawa T., Tawara A., Peng Y., Takahashi M., Kishimoto J., Tanaka T., Miyakawa Y., Mayumi M.; Kishimoto J., Tanaka T., Miyakawa Y., Mayumi M.; Species-specific TT viruses in humans and nonhuman primate phylogenetic relatedness."; Virology 277:368-378(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN-Pt-TTV6;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Viruses; ssDNA viruses; NCBI_TaxID=68887;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; AB041957; BAB19308.1; InterPro; IPR004219; TTvirus_Unk.pfam; PF02956; TT_ORF1; 1.
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Q66765;
Q1-NOV-1996 (TrEMBLrel: 01,
Q1-NOV-1996 (TrEMBLrel: 01,
Q1-MAR-2003 (TrEMBLrel: 23,
                                  MEDLINE=92148946; PubMed=1310768;
                                                                                                       NCBI_TaxID=12104;
                                                                                                                            Cardiovirus
                                                                                                                                          Encephalomyocarditis virus.
Viruses: ssRNA positive-strand viruses,
                                                                                                                                                                                Polyprotein.
                     Duke G.M.,
                                                     STRAIN-Ruckert;
                                                                          SEQUENCE FROM N.A.
 'Sequence
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   Hoffman M.A.,
and structural
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42.3%;
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86132 MW;
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Pred. No. 3;
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Best Local
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HSSP; P12296; 1MEC
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InterPro; IPR007094;
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Interpro; IPR007095; RNA_pol_DS_PS
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01-MAR-2002 (TrEMBLrel.
01-MAR-2002 (TrEMBLrel.
01-OCT-2002 (TrEMBLrel.
                                                                                                                                              "Analysis of the complete genomes of thirteen TT virus variants classifiable into the fourth and fifth genetic groups, isolated viremic infants.";
Arch. Virol. 147:31-41(2002).
Arch. Virol. 147:31-41(2002).
EMBI, AB064615; BAB79374.1;
InterPro: IPR004219; TTVirus_Unk.
Pfam; PF02956; TT_ORF1; 1.

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                                                                                                                                                                                                                                        MEDLINE=21844401; PubMed=11855633; MEDLINE=21844401; PubMed=17855633; Medline=21844401; PubMed=1784ahashi M., Ishikawa T., Yoshikawa
                                                                                                                                      SEQUENCE
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                                                                                                                                       92 AA; 12429 MW;
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07; RDRP_POSITIVE; 1.
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01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
v-1 reverse transcriptase (Fragment).
Human immunodeficiency virus 1.
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01-OCT-2002
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SEQUENCE
                                                                                                                                                                      antiretroviral therapy.";
J. Clin. Microbiol. 39:454-459
EMBL; AJ401761; CAB86530.1; -.
                                                                                                                                                                                                                                  Servais J., Lambert C., Fontaine E., Plesseria J.M., Robert I., Arendt V., Staub T., Schneider F., Hemmer R., Burtonboy G., Schmit J.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    human immunodeficiency virus antiretroviral therapy.";
J. Clin. Microbiol. 39:454-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-21102417; PubMed-11158089;
Servals J., Lambert C., Fontaine E., Plesseria J.M., Robert I.,
Arendt V., Staub T., Schneider F., Hemmer R., Burtonboy G.,
Schmit J.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Viruses; Retroid viruses; Retroviridae; Lentivirus
                                                                                                                                                                                                         "Comparison of DNA sequencing and a human immunodeficiency virus Type 1
                                                                                                                                                                                                                                                                                   STRAIN=97001;
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NCBI_TaxID=11676;
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Pfam; PF00078; rvt; 1.
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209 LLRWGWYTPDKKHQKEPPFLWMGYELHPDKWTVQPIVLPEKDSW
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J. Clin. Microbiol. 39:454-459(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Servais J., Lambert C., Fontaine E., Arendt V., Staub T., Schneider F., H. Schmit J.C.;
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NCBI_TaxID=11676;
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EMBL; AJ401769; CAB86538.1;
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209 LLRWGWYTPDKKHQKEPPFLWMGYELHPDKWTVQPIVLPEKDSW
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Search completed: July 29, 2003, 16:34:25 Job time: 60.1781 secs

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Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
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1 ILRWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRRK 36
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SUMMARIES
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Sequence /2, Appl	5 /	04	0.0	e 62,	Φ	99,	e 95,	36,	64,	63,	62,	30,	48,	48,	48,	47,	24,	e 47,	e 39,	Ð	e 47,	e 46,	e 39,	Sequence 12, Appl	e 50, 🌶	Sequence 104, App.	Description

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29
86	86	86	86	86	86	86	86	86	86	87	87	87	91	91	91	91
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US-08-702-054B-34	US-08-915-314-58	US-08-915-314-51	US-09-667-486-74	US-09-667-486-42	US-09-030-619-112	US-09-030-619-23	US-08-702-054B-5	US-08-915-314-74	US-08-915-314-42	US-09-667-486-52	US-09-030-619-67	US-08-915-314-52	US-09-667-486-54	US-09-030-619-69	US-08-915-314-54	US-09-667-486-57
Sequence 34, Appl	Sequence 58, App	Sequence 51, App	Sequence 74, App	42,	112	23,	رى د	74,	Sequence 42, App	52,	Sequence 67, App	Sequence 52, App	Sequence 54, App	Sequence 69, App	Sequence 54, App	Sequence 57, Appl

# ALIGNMENTS

RESULT 2 US-09-030-619-50 ; Sequence 50, Application US/09030619B ; Patent No. 6503881 ; Patent No. 6503881 ; GENERAL INFORMATION: ; APPLICANT: Krieger, Timothy J. ; APPLICANT: Taylor, Robert ; APPLICANT: Erfle, Douglas ; APPLICANT: Fraser, Janet R. ; APPLICANT: West, Michael H.P. ; APPLICANT: West, Michael H.P. ; APPLICANT: MCNICOL, PATRICIA J. ; TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMP. ; TITLE OF INVENTION: WITH ANTIBIOTICS	Query Match 64.6%; Score 152.5; DB 4; Length 28; Best Local Similarity 63.9%; Pred. No. 5.2e-13; Matches 23; Conservative 1; Mismatches 1; Indels 11; Gaps  Qy 1 ILRWPWWPWRKHEAEPEAEPIMILKKWPWWPWRRK 36	RESULT 1  US-09-030-619-104  ; Sequence 104, Application US/09030619B ; Patent No. 6503881 ; Patent No. 6503881 ; GENERAL INFORMATION:     APPLICANT: Krieger, Timothy J.     APPLICANT: Erfle, Douglas     APPLICANT: Erfle, Douglas     APPLICANT: Mest, Michael H.P.     APPLICANT: Mest, Michael H.P.     APPLICANT: MCNICO1, Patricia J.     TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING     TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMPOSITIONS ON THE REPERTOR OF SECURIAL MATERIAL SECURIAL
N COMBINATION	Gaps 1;	N COMBINATION

SEQ ID NO 50

SOFTWARE:

NUMBER OF SEQ ID NOS:

FastSEQ for Windows Version 3.0

FILE REFERENCE: 660081.406
CURRENT APPLICATION NUMBER: US/09/030,6198
CURRENT FILING DATE: 1998-02-25

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US-09-099-631A-12
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SEQ ID NO 12
LENCTH: 63
TYPE: PRT
ORGANISM: Artificial Sequence
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Matches
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                                                                                NUMBER OF SEQ ID NOS: 39
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 39
LENGTH: 63
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Patent No. 6444645
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CURRENT FILING DATE: 1998-06-18
NUMBER OF SEQ ID NOS: 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Selsted, Michael E. APPLICANT: Osapay, Klara TITLE OF INVENTION: Crosslink-Stabilized Indolicidin Analogs FILE REFERENCE: P-UC 3050
                                                                                                                                                     PRIOR APPLICATION NUMBER: US 09/076,227 PRIOR FILING DATE: 1998-05-12
                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/09/416,481A CURRENT FILING DATE: 1999-10-12
                                                                                                                                                                                                                       APPLICANT: Selsted, Michael E. TITLE OF INVENTION: Indolicidin Analogs and Methods of Using FILE REFERENCE: P-UC 3794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 28
TYPE: PRT
ORGANISM: Artificial Sequence
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OTHER INFORMATION: Indolicidin Analogue
OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: construct
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Application US/09099631A
                                                                                                                                                                                                                                                                                                             Application US/09416481A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62.9%;
66.7%;
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Pred. No. 1.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 130.5; DB 4;
Pred. No. 7.2e-10;
1; Mismatches 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -MIL-RWPWWPWRRK 25
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GENERAL

INFORMATION:

APPLICANT:

APPLICANT: APPLICANT:

Krieger, Timoth Taylor, Robert Erfle, Douglas

Timothy J

APPLICANT:

Fraser, Janet R.

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                                  US-09-030-619-47
                                                                                                                                                                                                      US-08-915-314-46
                                              RESULT 6
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Sequence 47, Appa-
                                                                                                                                               Matches
                                                                                                                                                                        Query Match
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                                                                                                                                                                                                                                                                                        TELEFAX: (206) 682-60 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/08
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Rel
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
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                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
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STREET: 
TIMY: Seattle
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                             NAME: NO. 6180604tenburg Ph.D., Carol REGISTRATION NUMBER: 39,317
                                                                                                                                                            Local
                                                                                                                                                                                                                    TOPOLOGY:
                                                                                                                                                                                                                                 STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                    TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER:
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                                                                                                                                                                                                                                                           LENGTH:
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                                                                                                                                               18; Conserv
                                                                                                                     1 ILRWPWWPWRRKHEAEPEAEPIMILKK 27
                                                                                                                                                                                                                                               amino acid
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                  Application US/09030619B
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                                                                                                                                                                                                                                                           21 amino
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Taylor, Robert
Erfle, Douglas
VENTION: COMPOSITIONS AND METHODS FOR TREATING
VENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                       (206)
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Krieger, Timothy J.
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                                                                                                                                               Conservative
                                                                                                                                                                                                                    linear
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                                                                                                                                                                                                                                                                                                                    (206) 622-4900
                                                                                                                                                                                                                                                                                                     682-6031
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                                                                                                                                                                                                                                                             acids
                                                                                                                                                            41.7%;
66.7%;
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                                                                                                                                                                                                                                                                                         46:
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Pred. No. 7.2e
1; Mismatches
                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                 660081.405
                                                                                                                                                            Score 98.5; DB 3; Pred. No. 2.4e-06;
                                                                                           --IMILKK 18
                                                                                                                                                  Mismatches
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nes 5;
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 46,
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CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 32
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: COMPOSI
TITLE OF INVENTION: INFECTI
TITLE OF INVENTION: WITH AN
FILE REFERENCE: 660081.406
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TYPE: PRT
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                                                                                                                              TELEFAX: (206) 682-6031 INFORMATION FOR SEQ ID NO: 46:
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                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/667,486

FILING DATE: 22-Sep-2000

CLASSIFICATION: <UNHOWN>

PRIOR APPLICATION DATA:
                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: 660081.405 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
ATTORNEY/AGENT INFORMATION:
NAME: No. 6538106tenburg Ph.D., Carol:
REGISTRATION NUMBER: 39,317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
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SEQUENCE DESCRIPTION: SEQ ID NO: 46:
                                                                                                            SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 ILRWPWWPWRRKHEAEPEAEPIMILKK 27
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Seattle
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                        TOPOLOGY: linear
                                                                                                                                                                      TELEPHONE:
                                                                                    LENGTH: 21 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INVENTION: COMPOSITIONS AND METHODS FOR TREATING INFECTIONS USING ANALOGUES OF INDOLICIDIN
                                                                amino acid
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Taylor, Robert
Erfle, Douglas
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                                                                                                                                                                         (206)
                                            <Unknown>
                                                                                                                                                                         622-4900
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Pred. No. 2.4e-06;
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; OTHER INFORMATION: Indolicidin Analogue
US-09-030-619-39
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                                                                                                                                                                                                                                                                                                                                                                      Sequence 4 Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: I
SEQ ID NO 39
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Best Local
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APPLICANT:
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Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/030,619B
CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: MCNICOL, PATTICIA J.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 15
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                   APPLICANT: West, Michael H.P.
APPLICANT: Krieger, Timothy J.
APPLICANT: Taylor, Robert
APPLICANT: Taylor, Robert
APPLICANT: Erfle, Douglas
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
CURRENT APPLICATION DATA:
                                                                                COMPUTER READABLE FORM:
                                                                                                                                                                                                 NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                       APPLICANT:
              MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
                                                                                                                  COUNTRY:
                                                                                                                                                                   STREET:
                                                                                                                                                                                 ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                        7, Application US/08915314 6180604
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                                                                                                    98104
                                                                                                                                                   Seattle
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                                                                                                                              Washington
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Erfle, Douglas
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                                                                                                                                                                6300 Columbia
                                                                                                                  USA
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                                                                                                                                                                                                                                                                                                                                       Fraser, Janet
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                                                                                                                                                                                 SEED and BERRY LLP
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                                                                                                                                                                   Center, 701 Fifth Avenue
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Pred. No. 2.
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Pred. No. 5
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               Version #1.30
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RESULT 11
US-09-667-486-47
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                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Fas
SEQ ID NO 24
LENGTH: 20 ·
                                                        Sequence 47, Application Patent No. 6538106 GENERAL INFORMATION:
                                                                                                                                                                                                                              Matches
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Best Local
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/030,619B
CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: MCNICO1, PATRICIA J.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: MITH ANTIBIOTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
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                                                                                                                                                                                                                                                                                                                                    ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: Indolicidin Analogue
                                                                                                                                                                                                                                                                                                                        FEATURE:
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LENGTH: 20 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                             Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: FILING DATE: 20-AUG
                                          APPLICANT: Fraser,
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650388J
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                                                                                        Application US/09667486
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Erfle, Douglas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Application US/09030619B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    West, Michael H.P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fraser, Janet R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Krieger,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              39.8%;
nilarity 63.0%;
Conservative
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Krieger, Timothy J
Taylor, Robert
                            West, Michael H.P.
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20-AUG-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Timothy J.
                                                                                                                                                                                                                                         39.8%;
63.0%;
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                                                                                                                                                                                                                          Score 94; DB Pred. No. 8.5e O; Mismatches
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Pred. No. 8.5e
0; Mismatches
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3.5e-06;
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RESULT 12
US-08-915-314-48
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Best Local Similarity
Matches 17; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 48,
                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO: 47:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                           APPLICANT:
APPLICANT:
                                                                   COMPUTER READABLE FORM:
                                                                                                                                                                                                                TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                APPLICANT: Taylor, Robert APPLICANT: Erfle, Douglas
                                                                                                                                                                                                 CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                            APPLICANT:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
                                                                                                                        CITY: Seattle
STATE: Washington
                                                                                                            COUNTRY:
                                                                                                                                                             STREET:
                                                                                                                                                                                ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: No. 6538106tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, Version CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE DESCRIPTION: SEQ ID NO: 47:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BERRY LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING INFECTIONS USING ANALOGUES OF INDOLICIDIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
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                                                                                           98104
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 20 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS: <Unknown>
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08/915,314 FILING DATE: 20-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                             6300 Columbia
                                                                                                                                                                                                                                                                                       Fraser, Janet R. West, Michael H.P. Krieger, Timothy J. Taylor, Robert
                                                                                                            USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                39.8%;
                                                                                                                                                                                                                                  COMPOSITIONS AND INFECTIONS USING
                                                                                                                                                                                                                   90
                                                                                                                                                               Center,
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Pred. No.
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                                                                                                                                                               701 Fifth Avenue
Version #1.30
                                                                                                                                                                                                                                  METHODS FOR TREATING
ANALOGUES OF INDOLICIDIN
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8.5e-06;
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RESULT 14
US-09-667-486-48
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US-09-030-619-48
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SEQ ID NO 48
LENGTH: 21
TYPE: PRT
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Best Local S
Matches 17
                                                          Patent No. 6538106
GENERAL INFORMATION:
                                                                      Seguence 48, Apprin
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                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/030,619B CURRENT FILING DATE: 1998-02-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: MCNICOL, PATRICIA J.

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALC
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (206) 682-6031 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQ ID NOS:
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                                                                                                                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                             ORGANISM: Artificial Sequence
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REFERENCE/DOCKET NUMBER: 66
TELECOMMUNICATION INFORMATION:
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Local Similarity 63.0%;
hes 17; Conservation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/0
FILING DATE: 20-AUG-1997
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                                                                                          Application US/09667486
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                             Fraser, Janet R. West, Michael H.P.
Krieger, Timothy J.
Taylor, Robert
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63.0%;
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                                                                                                                                                                                                                                                   Score 93.5; DB . Pred. No. 1e-05;
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Pred. No. 1e-05;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; SEQUENCE DESCRIPTION: SEQ ID NO: US-09-667-486-48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 15
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Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 30,
                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 48: SEQUENCE CHARACTERISTICS:
             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
                                                                                                                                                                                                                                                               APPLICANT: West, Michael H.P.
APPLICANT: Krieger, Timothy J.
APPLICANT: Taylor, Robert
APPLICANT: Erfle, Douglas
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 9
                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                             COUNTRY:
                                                                                                                                                                                        STREET:
                                                                                                                                                                                                        ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
ATTORNEY_AGENT INFORMATION:
NAME: NO. 6538106tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 660081.405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
TELEFAX: (206) 682-6031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING INFECTIONS USING ANALOGUES OF INDOLICIDIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             l Similarity 63.0
                                                                                                             98104
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                                                                                                                                          Seattle
Washington
                                                                                                                                                                                                                                                                                                                                                                                                                      6180604
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/09/667,486 FILING DATE: 22-Sep-2000 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 21 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                    Application US/08915314
                                                                                                                                                                                        6300 Columbia
                                                                                                                                                                                                                                                                                                                                                                                 Fraser,
                                                                                                                                                                                                        SEED and BERRY LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Seattle
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                                                                                                                                                                                                                                                                                                                                                                                 Janet
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           39.6%;
                                                                                                                                                                                                                                                  90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <Unknown>
                                                                                                                                                                                        Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
               Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Version #1.30
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Title:
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum DB
Maximum DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score
                                                                                                                                                                                                                                                                                                                                                                                                                         152
148
98
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BLOSUM62
Gapop 10.0 ,
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Match Length
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236
                        \begin{smallmatrix} 66,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64,6\\ 64
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Copyright (c) 1993 - 2003 Compugen Ltd.
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/cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*
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/cgn2_6/ptodata/2/pubpaa/PCT
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/cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*
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                        /ptodata/2/pubpaa/US07_PUBCOMB.pep:*
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                                                US-09-030-619-104
US-09-030-619-50
US-09-030-619-39
US-09-030-619-24
US-09-030-619-95
US-09-030-619-95
US-09-030-619-95
US-09-030-619-95
US-09-030-619-108
US-10-252-773-3
US-09-030-619-108
US-09-030-619-108
US-09-030-619-69
US-09-030-619-69
US-09-030-619-69
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US-09-030-619-63
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Sequence 104, Appl
Sequence 47, Appl
Sequence 39, Appl
Sequence 39, Appl
Sequence 24, Appl
Sequence 95, Appl
Sequence 95, Appl
Sequence 72, Appl
Sequence 72, Appl
Sequence 67, Appl
Sequence 23, Appl
Sequence 23, Appl
Sequence 23, Appl
Sequence 23, Appl
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-09-030-6	-09-030-6	-09-030-6	<b>-030-€</b>	-09-030-6	30-6	-09-030-6	US-09-030-619-82	-09-030-6	-09-030-6	9-0	-09-030-6	-09-030-6	-09-030-6	9-030-6	-09-030-6	9-0	-09-030-6	9-0	-09-030-6	-09-030-6	-030-6	-09-030-6	-09-030-6	30-6	-09-030-6	-09-030-6	-09-030-6	-09-030-6	19-
31,	equence 113	e 78,	Ø	е 89,		æ	e 82,	Ф	e 79,	e 102,	94,	e 59,	58,	e 111,	30,	e 106,	e 105,	44,	e 43, App		41,	æ	e 52,	e 51,		e 54,	e 109	uence 107,	

### ALIGNMENTS

RESULT 1 US-09-030-619-104

Sequence

104, Application US/09030619B o. US20020035061A1

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APPLICANT: West, Michael H.P.
APPLICANT: WcNicol, Patricia J.
TITLE OF INVENTION. COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
CURRENT APPLICATION NUMBER: US/09/030,619B
CURRENT FILING DATE: 1998-02-25
NUMBER OF SEO ID NOS: 232
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 104
LENGTH: 28
TYPE: PRT
ORGANISM: Artificial Sequence
RESULT 2
US-09-030-619-50
                                                                        B
                                                                                                       Qy
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                                                                                                                                             Query Match
Best Local S
Matches 23
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                                                                                         1 ILRWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRRK 36
                                                                                                                                               l Similarity
23; Conserv
                                                                          ILRWPWWPWRRK----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fraser, Janet R.
West, Michael H.P.
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Taylor, Robert
Erfle, Douglas
                                                                                                                                               Conservative
                                                                                                                                                            64.6%;
63.9%;
                                                                                                                                           Score 152.5; DB 9; Pred. No. 1.5e-10; 1; Mismatches 1;
                                                                      --ILMRWPWWPWRRK 25
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RESULT 4
US-09-030-619-39
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                                                                                                                                                                                      Query Match
Best Local S
Matches 18
                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: FOR SEQ ID NO 47
LENGTH: 21
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING TITLE OF INVENTION: COMPOSITIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION TITLE OF INVENTION: WITH ANYIBIOTICS
FILE REFERENCE: 660081.406
CURRENT APPLICATION NUMBER: U5/09/030,619B
CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
SOFTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 50
LENGTH: 28
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Best Local
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CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Fraser, Janet R.
APPLICANT: West, Michael H.P.
APPLICANT: MCNICOL, Patricia J.
APPLICANT: MCNICOL, Patricia J.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
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                                                                                                                                                                                                                                                                                                                     ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
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                                                                                                                          1 ILRWPWWPWRRKHEAEPEAEPIMILKK 27
                                                                                                                                                                                      l Similarity
18; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 ILRWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRRK 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ch 62.9%;
l Similarity 66.7%;
24; Conservative
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        Application
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Erfle, Douglas
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West, Michael H.P.
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66.7%;
      US/09030619B
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Pred. No. 0.00011;
0; Mismatches 0
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Pred. No. 4.3e-10;
Wismatches 0;
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                                                                                                                                                                                    0,
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; OTHER INFORMATION: Indolicidin Analogue
US-09-030-619-24
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Best Local S
Matches 15
                                                                       Matches
                                                                                                                                                                                          SEQ ID NO 24
LENGTH: 20
TYPE: PRT
ORGANISM: Artificial Sequence
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                                                                                                       Query Match
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APPLICANT: West, Michael H.P.
APPLICANT: West, Michael H.P.
APPLICANT: McNicol, Patricia J.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR
FILE REFERENCE: 660081.406
                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/030,619B
CURRENT EILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
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TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
FILE REFERENCE: 660081.406
FILE REFERENCE: 660081.406
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CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
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OTHER INFORMATION: Indolicidin Analogue
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                                                              Local Similarity 63.0%; hes 17; Conservation
                  1 ILRWPWWPWRRKHEAEPEAEPIMILKK 27
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15; Conserv
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Erfle, Douglas
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41.7%;
----MILKK 17
                                                                                      Score 94; I
Pred. No. 0.
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Pred. No. 0.00023;
                                                                    Mismatches
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                                                                  Gaps
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RESULT 6
US-09-030-619-48
; Sequence 48, Application US/09030619B
; Patent No. US20020035061A1

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RESULT 8
US-09-030-619-99
; Sequence 99, Application US/09030619B
; Patent No. US20020035061A1
; GENERAL INFORMATION:
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SEQ ID NO 48
LENGTH: 21
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TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
CURRENT APPLICATION NUMBER: US/09/030,619B
CURRENT FILING DATE: 198-02-25
NUMBER OF SEQ ID NOS: 232
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                       FILE REFERENCE: 660081.406
CURRENT APPLICATION NUMBER: US/09/030,619B
CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANTIBIOTICS
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                                                                                                                                             24 ILKKWPWWPWRRK 36
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17; Conser
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                                                                                                                                                                                               Conservative
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                                                                                                                                                                                                             38.6%;
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                                                                                                                                                                                                               Score 91;
Pred. No.
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Pred. No. 0.00039;
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; FEATURE:
; OTHER INFORMATION: Cationic Peptide Analogue
US-09-030-619-99
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                                                                                                                                  ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic ; OTHER INFORMATION: antimicrobial peptide US-10-252-773-3
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CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 99
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Best Local Similarity
Matches 13; Conserv
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                                                                                 Query Match
Best Local
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                                                                   Matches
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CURRENT APPLICATION NUMBER: US/10/252,773
CURRENT FILING DATE: 2002-09-23
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TITLE OF INVENTION: DEGRADATION
TITLE OF INVENTION: DEGRADATION
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TITLE OF INVENTION:
TITLE OF INVENTION:
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TYPE: PRT
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                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 27
                                                                                                                                                                                                                                                                                                          PRIOR FILING DATE: 1998-11-02
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                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: 60/106,573
                                                                                                                                                                                                     TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                       FEATURE:
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24 ILKKWPWWPWRRK 36
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1 ILKKWPWWPWRRK 13
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                                                                                 Similarity
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Taylor, Robert
Erfle, Douglas
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                                                               38.6%; ilarity 100.0%; Conservative
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Pred. No.
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Pred. No.
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0.00048;
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RESULT 10 US-09-030-619-72 ; Sequence 72, Ap ; Patent No. US20

2, Application US/09030619B US20020035061A1

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RESULT 12
US-09-030-619-69
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SEQ ID NO 108
LENGTH: 14
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GENERAL
            Sequence 69, Application US/09030619B Patent No. US20020035061A1
                                                                                                                                                                                Query Match
Best Local
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Best Local :
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SEQ ID NO 72
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                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: MCNICO1, PATRICIA J.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
CURRENT APPLICATION NUMBER: US/09/030,619B
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CURRENT APPLICATION NUMBER: US/09/030,619B
CURRENT FILING DATE: 1998-02-25
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TITLE OF INVENTION: COMPOSITIONS AND
TITLE OF INVENTION: INFECTIONS USING
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
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TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                         ORGANISM: Artificial Sequence FEATURE:
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INFORMATION:
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                                                                                                                       ILKKWPWWPWRRK 36
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Erfle, Douglas
Fraser, Janet R.
West, Michael H.P.
                                                                                                     ILKKWPWWPWRRK 13
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Erfle, Douglas
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                                                                                                                                                                Conservative
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100.0%; Pr
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Pred. No.
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RESULT 14
US-09-030-619-23
; Sequence 23, Application US/09030619B
; Patent NO. US20020035061A1
; GENERAL INFORMATION:
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; OTHER INFORMATION: Indolicidin Analogue
US-09-030-619-67
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Best Local S
Matches 13
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SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 67
LENGTH: 12
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Best Local
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SOFTWARE: FastSEQ for
SEQ ID NO 69
LENGTH: 21
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                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: MCNICOL, PATTICIA J.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
CURRENT APPLICATION NUMBER: US/09/030,619B
CURRENT FILING DATE: 1998-02-25
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CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
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ORGANISM: Artificial
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                                                                                                                                         25 LKKWPWWPWRRK 36
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12; Conser
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13; Conserv
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US20020035061A1
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Pred. No.
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Search completed: July 29, 2003, 16:46:46 Job time: 33.0411 secs
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; OTHER INFORMATION: Cationic Peptide Analogue US-09-030-619-112
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; OTHER INFORMATION: Indolicidin Analogue
US-09-030-619-23
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SOFTWARE: FASTSEQ for
SEQ ID NO 112
LENGTH: 12
TYPE: PRT
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US-09-030-619-112
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Best Local Similarity 100.
Matches 12; Conservative
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CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 23
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 23
STORED TO 23
TYPE: PRT
ORGANISM: Artificial Sequence
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Best Local Similarity
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APPLICANT: Erfle, Douglas

APPLICANT: Fraser, Janet R.

APPLICANT: West, Michael H.P.

APPLICANT: McNicol, Patricia J.

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING

TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALC

TITLE OF INVENTION: WITH ANTIBIOTICS
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CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
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APPLICANT: Erfle, Douglas
APPLICANT: Fraser, Janet R.
APPLICANT: West, Michael H.P.
APPLICANT: McNicol, Patricia J.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS OF CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
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                                                                                                          24 ILKKWPWWPWRR 35
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20020035061A1
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                                                                                                                                                                      36.4%; Score 86; DB 9; Length 12; 100.0%; Pred. No. 0.0016; Live 0; Mismatches 0; Indels
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100.0%; Pred. No. 0.0016;
Live 0; Mismatches 0
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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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                                                                                                                                           141.
137.
133.
133.
                                                                                                                                                                                                                                                                                                                                                            Score
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Gapop 10.0 , Gapext 0.5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  //SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1984.DAT:*
/SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1985.DAT:*
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/SIDS1/gcgdata/geneseq/geneseqp-embl/AA2000.DAT:*
/SIDS1/gcgdata/geneseq/geneseqp-embl/AA2001.DAT:*
/SIDS1/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*
/SIDS1/gcgdata/geneseq/geneseqp-embl/AA2003.DAT:*
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SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1987.DAT:*
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AAW66363
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AAW12899
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AAY24571
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                                                                                                                                                                     Amino acid sequenc
Indolicidin analog
Poly-(Indol (1-13)
Indolicidin fusion
                                                                                                                                                                                                                                                                                                                                                     Description
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Indolicidin analog
                                    Amino acid sequenc
Indolicidin analog
   Amino acid sequenc
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45	44	43	42	41	40	39	38	37	36	35	34	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10
85	85	85	85.5	86	86	86	86	86	86	86	86	86	86	87	87	87.5	87.5	87.5	89	91	91	91	91	91	91	91	91	91	91	91	91	91	91	93.5	w
35.3					35.7		35.7	35.7	35.7	35.7	35.7	35.7	35.7	σ,	<u>о</u>	6	σ.	σ.	რ	7.	7.	7.	7	7	7	7.	7.	7	7.	7.	7.	7.	7.	38.8	œ
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AAW27179	AAY91828	AAY24586	AAW12882	AAY91813	AAY24573	AAY91812	AAY91803	AAY24572	AAY24613	AAW12896	w	AAY24615	AAW12877	AAY91804	AAY24580	AAY91796	AAW66376	AAY24552	AAW13802	AAY91811	AAY24583	ABB81254	AAY91820	AAY91819	AAY91818	AAY91774	AAY91773	279	9	AAW71690	AAW66378	AAY24609	AAW12873	918	AAY24570
	acid:	Indolicidin analog	icrobia	acid s	_		ß	icidin	Indolicidin analog	icrobi	Amino acid sequenc	Indolicidin analog	Antimicrobial cati.	Amino acid sequenc	cidin	Amino acid sequenc	Cationic peptide o	Indolicidin analog	Antimicrobial cati	C.	icidin analo	NH2 an	acid	acid	acid	acid	acid	Indolicidin analog	-11	tionic peptide	Cationic peptide o	n analo	Antimicrobial cati	no acid s	Indolicidin analog

## ALIGNMENTS

RESULT 1 AAY91800

AAY91800 standard; Peptide; 28 AA

AAY91800;

06-JUN-2000 (first entry)

Amino acid sequence of cationic peptide MBI 11B20CN

multidrug resistance Cationic peptide; tumour; pharmaceutical composition; cancer; treatment; leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon;

Synthetic

WO9965506-A2

23-DEC-1999.

14-JUN-1999; 99WO-CA00552

12-JUN-1998; 98US-0096541.

(MICR-) MICROLOGIX BIOTECH INC.

Friedland HD, Krieger TJ, Taylor R, Erfle D, Fraser JR, West MHP;

WPI; 2000-223549/19.

Novel pharmaceutical composition containing optionally activated

2;

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RESULT 2
AAW66363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with a PO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically. Tymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, cervity interms attractions.
                                                                                                                                                                                                                                                                                                                                                                                                                                           25-FEB-1998;
10-MAR-1997;
20-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     polyoxyalkylene-modified
             The present sequence represents an indolicidin analogue. The present invention describes compositions and methods for treating infection, especially bacterial infections. The compositions and methods use cationic peptides in combination with an antibiotic agent which are then administered to a patient to enhance the activity of the antibiotic agent, to overcome: (a) tolerance; (b) acquired resistance; and (c)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cervix, uterus, skin,
inherent resistance.
                                                                                                                                                               Claim
                                                                                                                                                                                                         New indolicidin peptide analogues - useful for, activity of antibiotic or overcoming tolerance, or inherent resistance of microorganisms
                                                                                                                                                                                                                                                                                              WPI;
                                                                                                                                                                                                                                                                                                                                      Fraser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-SEP-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indolicidin analogue; resistance; cationic peptide;
bacterial infection; tolerance; antibacterial; micro
bacteria; fungus; parasite; virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  bacteria; fungus;
                                                                                                                                                                                                                                                                                                                                                                             (MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                     26-SEP-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Page 15; 94pp;
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97US-0040649.
97US-0915314.
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(a) 1
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tolerance; (b) acquired resistance; and (combinations of antibiotics and cationic
                                                                                                                                                                                                                                                                                                                                        West MHP
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Pred. No. 4.2e-11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       microorganism;
                                                                                                                                                                                                                                 acquired resistance
                                                                                                                                                                                                                                                   e.g. enhancing
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18-JUN-1998;

98US-0099631

(REGC ) UNIV

CALIFORNIA Osapay K;

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AAY44668
ID AAY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   peptides can provide synergistic activity against a microorganism that is tolerant, inherently resistant, or has acquired resistance to an antiblotic agent. They can be used for killing e.g. bacteria, fungi, parasites and viruses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Crosslinked indolicidin analog; X-indolicidin; poly-Indol 1-13; stability; bovine neutrophil; antimicrobial; antibacterial; fungi protozoacide; virucide; anti-HIV; human immunodeficiency virus-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
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                                                                                                                                                                                                                                                                                                                                                                                      Bos
                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                          Escherichia coli; Salmonella typhimurium; yeast; fungi; protozoa;
Candida albicans; Cryptococcus neoformans; Glardia; Acanthamoeba;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 HIV-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Poly-(Indol (1-13)-Met-Ala-Arg-Ile-Ala-Met)3 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-APR-2000
                                                                     20-MAY-1999;
                                                                                         23-DEC-1999
                                                                                                                WO9965510-A1
                                                                                                                                             Region
                                                                                                                                                                Region
                                                                                                                                                                                     Region
                                                                                                                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                                                                                                                                                  nexapeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                    sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  gram
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4 KWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRRK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RWPWWPWRRK - - -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                  spacer
                                                                                                                                                                                                                                                                                                                                                                                                                                                 positive bacteria; gram negative; Staphylococcus aureus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                      99WO-US11165
                                                                                                                                             /label=
58..63
                                                                                                                                                                                                                                                   /label=
39..40
                                                                                                                                                                                                                                                                      /label=
25..26
                                                                                                                                                                                     /label=
20..25
                                                                                                                                                                  39..4
                                                                                                                                                                                                          58..59
                                                                                                                                                                                                                                                                                                                         /label=
                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                    /label=
                                                                                                                                                                                                                                        /label=
                                                                                                                                                                                                                                                                                                     /label=
                                                                                                                                                                                                                                                                                                                                           /label=
                                                                                                                                                                            /label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   57.1%;
                                                                                                                                                                                                                                                                                                     Cyanogen_bromide_cleavage_site
                                                                                                                                                                                                                                                                                                                                            Enterokinase_recognition_site
                                                                                                                                    Hexapeptide_spacer
                                                                                                                                                                           Hexapeptide_spacer
                                                                                                                                                                                                Cyanogen_bromide_cleavage_site
                                                                                                                                                                                                                    Cyanogen_bromide_cleavage_site
                                                                                                                                                                                                                                        Cyanogen_bromide_cleavage_site
                                                                                                                                                                                                                                                             Cyanogen_bromide_cleavage_site
                                                                                                                                                                                                                                                                                 Cyanogen_bromide_cleavage_site
                                                                                                                                                                                                                                                                                                                         Enterokinase_cleavage_site
                                                                                                                                                       Hexapeptide_spacer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 137.5;
Pred. No. 1.3e
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -MIL-RWPWWPWRRK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..3e-10;
nes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        fungicide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
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RESULT 4
AAY57142
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   γ
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Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (X-indolicidin) analogs are stable and have antimicrobial activity against gram positive and negative bacteria (e.g. Staphylococcus aureus, Escherichia coli and Salmonella typhimurium), yeasts and fungi (e.g. Candida albicans, Cryptococcus neoformans), protozoa (e.g. Giardia species and Acanthamoeba species), and viruses (e.g. HIV-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The patent discloses crosslinked analogs of indolicidin (Indol 1-13) which is a naturally occurring peptide isolated from bovine neutroph and has antimicrobial activity. The crosslinked indolicidin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            solution, an inanimate object comprising a surface, or a mammal. The present sequence is a protein comprising three copies of Indol 1-13 each separated by a hexapeptide spacer sequence. A recombinant construct encoding this sequence was used for the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 1C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Crosslinked indolicidin analogs with antimicrobial activity against bacteria, yeast, fungi, protozoa and viruses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2000-147133/13.
N-PSDB; AAZ49764.
                                      New indolicidin analogues, active against bacteria, yeast, protozoa and virus, used for, e.g. treating infections - \,
                                                                                                                                         Selsted ME
                                                                                                                                                                                                                                                                                                                                                             Indolicidin analogue; antimicrobial activity; helminth; bacteria; virus; treatment; inhibit growth; micro-organism; contact lens solution; transgenic plant; surgical instrument; yeast; fungi; protozoa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY57142;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               expression of Indol-homoserine (Hse) analog. The ability of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             They can be used for reducing or inhibiting the growth or survival microorganisms in an environment e.g. a food or food product, a
           Disclosure; Fig 6; 62pp; English
                                                                                           N-PSDB;
                                                                                                          WPI; 2000-053028/04
                                                                                                                                                                                                      12-MAY-1998;
                                                                                                                                                                                                                                    05-MAY-1999;
                                                                                                                                                                                                                                                                     18-NOV-1999
                                                                                                                                                                                                                                                                                                   W09958141-A1
                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                               Indolicidin
                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY57142 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                     (REGC ) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            indol-Hse analog to maintain antimicrobial activity provides a means
produce X-indolicidin analog precursors in sufficient quantities.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4 KWPWWPWRRKHEAEPEAEPIMILK-KWPWWPWRR 36
                                                                                           AAZ45123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KWPWWPWRRM-----ARIAMILPWKWPWWPWRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     yeast,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   63 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                              fusion peptide amino acid sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fig 1;
                                                                                                                                                                       CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                     98US-0076227
                                                                                                                                                                                                                                    99WO-US09942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    fungi,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  53pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   55.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 133.5; DB Pred. No. 1e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      from bovine neutrophils
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    63;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ç
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RESULT 5
AAW12899
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                                                                                                                                                                                                                                                                                                                                                                                          ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local :
                                                                                                                                                                                                               bacterium;
antiviral;
Shigella.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         provided that if Xaal is present, Xaa8 = Hse, Met or Met-Xaa9-Met; and further provided that: if Xaa2 is absent, Xaal is absent; if Xaa3 is absent, Xaal and Xaa2 are absent; if Xaa4 is absent, Xaa1, Xaa2 and Xaa3 are absent, Xaa1, Xaa2, Xaa3 and Xaa4 are absent. The indolicidin analogues can be used to create a fusion polypeptide consisting of the analogue linked to a peptide. The indolicidin analogues have antimicrobial activity against gram positive bacteria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Xaa5
Xaa6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Xaa2
Xaa3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Where:
Xaa1 =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This is the amino acid sequence of an example of a fusion protein which consists of an indolicidin analogue linked to another peptide. Peptides AAY57109-Y57138 and AAY57143-Y57144 are new indolicidin analogues, which have a homoserine residue and/or a truncated amino terminal region. The analogues have the following amino acid sequence:
                                                                                                                                                                                                                                                                                                                                                                                     AAW12899 standard; peptide; 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         into
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     as water or an aqueous solution, e.g. contact lens solution. The analogues have potential uses in food products, and in objects such as the surface of an instrument used to prepare food or to perform surgery. Transgenic plants or animals useful in the food industry can be produced by introducing a nucleic acid molecule encoding an indollicidin analogue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gram negative bacteria, yeast, fungus, protozoa and viruses (e.g. HIV-1). They are also active against helminths. The analogues can be used for reducing or inhibiting growth or survival of a microorganism. They can be used for treating infections. They can also be included in a liquid such
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Xaa7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Xaal-Xaa2-Xaa3-Xaa4-Xaa5-Xaa6-Pro-Xaa6-Xaa6-Pro-Xaa6-Xaa7-Xaa7-Xaa8
                           (UYBR-) UNIV BRITISH COLUMBIA
                                                                                        23-AUG-1996;
                                                                                                                       06-MAR-1997
                                                                                                                                                    WO9708199-A2
                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                               Bacterial; viral;
                                                                                                                                                                                                                                                                                           Antimicrobial cationic peptide CP-26
                                                                                                                                                                                                                                                                                                                             10-DEC-1997
                                                        23-AUG-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5 = Arg, Lys or
6 = Trp or Phe;
7 = Arg, Lys or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   = homoserine (Hse), Met, m
= at least one amino acid;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               = Trp, Phe or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  = Pro or absent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Arg, Lys or absent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KWPWWPWRRKHEAEPEAEPIMILK-KWPWWPWRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KWPWWPWRRM----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        germline
                                                                                                                                                                                                                             viral; antitumour; food; preservative; inhibitor; growth;
yeast; endotoxaemia; sepsis; antibiotic; fungal;
Candida albicans; sterilant; Salmonella; Yersina;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lys or absent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Leu,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA;
                                                          95US-0002687
                                                                                        96WO-IB00996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Val,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Val,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cells of such organisms.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            55.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ala,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   --ARIAMILPWKWPWWPWRR 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gly or absent;
Gly or absent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 133.5; DB Pred. No. 1e-09; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Met-Xaa9-Met or absent, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              63;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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ŢJ,

Gough M,

Hancock REW;

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В
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                                                                                                                                                                                  RESULT 6
                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                               Claim 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1997-179179/16
                                                                                                                                                                                                                                                      Sequence
                                                                                                  Indolicidin; bacterial infection; photo-oxidised solubiliser; antimicrobial; antibiotic; antiarrythmic; surface disinfectant; additive; shampoo; soap; insecticide; herbicide; preservative; food; technical material.
                                                                                                                                 Indolicidin analogue #34
                                                                                                                                              18-AUG-1999
                                                                                                                                                                      AAY24582 standard; peptide; 21 AA
                                                                          WO9807745-A2
                                                                                      Synthetic
                              13-JAN-1997;
21-AUG-1996;
                                                  21-AUG-1997;
      Erfle D,
                                                              26-FEB-1998
                  (MICR-) MICROLOGIX BIOTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                           as a food
                                                                                                                                                                                                                1 ILKKWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRRK 37
                                                                                                                                                                                                                              l6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                 peptide(s) having anti-microbial activity - used for the on of bacterial and viral growth, as an antitumour agent,
                                                                                                                                                                                                                                                                                                                                                                                                               Page 66; 89pp; English
                                                                                                                                                                                                                                                       16 AA;
                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                           preservative
                                                                                                                                              (first entry)
                               97US-0034949
96US-0024754
                                                  97WO-US14779
                                                                                                                                                                                                                                    41.3%;
        Krieger TJ,
                                                                                                                                                                                                                              Score 99.5; DB 18
Pred. No. 4.4e-06;
0; Mismatches
        Taylor R,
                                                                                                                                                                                                       -WPWWPWRRK 16
                                                                                                                                                                                                                                            DB 18;
                                                                                                                                                                                                                                0,
         West MH;
                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                             16;
                                                                                                                                                                                                                                 21;
                                                                                                                                                                                                                                 Gaps
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fungi (yeast or moulds); parasites (protozoa, nematodes) cestodes or trematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola controlled are Leishmania, Todavirus and papilloma virus. Compounds hepatica, Klebsiella penumoniae, Bordetella pertussis, Staphylococcus aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds derived from the analogues may be used from antibiotics or antiarrythmic agents. The analogues may be used therapeutically or to coat medical devices; also they are useful as surface disinfectants, as additives to shampoo or soaps, as insecticides or herbicides, or as preservatives for foods and technical insecticides or herbicides, or as preservatives for foods and technical insecticides. The analogues are administered by injection, lavage, orally or topically, generally at 0.1-50 mg/kg. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Where Z = P or V; X = hydrophobic residue, preferably W; B = basic aa, preferably R or K; AA = any aa; n = 0 or 1; in (II), at least 1 Z = V; in (VIII) at least 2 X = F or Y. The analogues are used to treat infections caused by bacteria (Gram positive or negative, or anaerobic); infections caused by bacteria (Gram positive or negative, or anaerobic);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY24549 to AAY24615 represent indolicidin analogues of formulae (I)-(VIII) containing up to 25 amino acids (aa): RXZXXZXB (I), BXZXXZXBB(AA)nM (II), BBBXZXXZXB (III), BXZXXZXBBBn(AA)nMILBBAGS (IV), BXZXXZXBB (AA)nM (VI), LKNXZXXZXRK (VII) and BBXZXXZXBBB (VIII)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New indolicidin analogues with antimicrobial activity and related nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce toxicity, useful therapeutically, as disinfectants etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1998-169090/15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 13; Page 89; 129pp; English.
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Query Match Local . Similarity 18; Conserv ILKKWPWWPWRRKHEAEPEAEPIMILKK 28 Conservative 41.18; Score 99; Pred. No. 0; Mismatches 18 6 .9e-06; 19; Length 21 Indels 10; Gaps

<u>,,</u>

IJ AAY91806 RESULT 7 AAY91806 standard; Peptide;

밁 Qy

Sequence

21 AA;

toxicity

21 AA

06-JUN-2000 (first entry)

Amino acid sequence of cationic peptide MBI 11D4CN

Cationic peptide; tumour; pharmaceutical composition; cancer; treatment leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon; multidrug resistance. tumour; pharmaceutical composition; cancer; treatment;

Synthetic

WO9965506-A2

DR XXX 23-DEC-1999

14-JUN-1999; 99WO-CA00552

12-JUN-1998; 98US-0096541

(MICR-.) MICROLOGIX BIOTECH INC

Friedland HD, Krieger TJ, Taylor R, Erfle Ď, Fraser JR,

WPI; 2000-223549/19

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RESULT 8
AAY24571
ID AAY2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modification of peptides with APO increases their activity against turcells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically
AAY24549 to AAY24615 represent indolicidin analogues of formulae (I)-(VIII) containing up to 25 amino acids (aa): RXZXXZXB (II), BXZXXZXB (II), BBBXZXXZXB (III), BXZXXZXBB (AA)nM (VI), BBBXZXXZXBK (VI), BXZXXXZXBK (VII) and BBXZXXZXBBB (VIII), VIII), LEBNZXDXXXXXXKK (VI), LKDXZXXXXXKK (VII) and BBXZXXZXZBBB (VIII), Where Z = P or V; X = hydrophobic residue, preferably W; B = basic aa, preferably R or K; AA = any aa; n = 0 or 1; in (II), at least 1 Z = V;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel
                                                                                              Claim
                                                                                                                              New indolicidin analogues with antimicrobial activity and related nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce
                                                                                                                                                                                                                Erfle
                                                                                                                                                                                                                                                                  13-JAN-1997;
21-AUG-1996;
                                                                                                                                                                                                                                                                                                                                                              WO9807745-A2
                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                            Indolicidin; bacterial infection; photo-oxidised solubiliser; antimicrobial; antibiotic; antiarrythmic; surface disinfectant; additive; shampoo; soap; insecticide; herbicide; preservative;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY24571;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY24571 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  polyoxyalkylene-modified
                                                                                                                                                                                                                                                                                                           21-AUG-1997;
                                                                                                                                                                                                                                                                                                                                     26-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indolicidin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cervix, uterus, skin, prostate, liver and colon.
                                                                                                                                                                                                                                         (MICR-) MICROLOGIX BIOTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ympnoma,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                pharmaceutical
                                                                                                                                                                                                                                                                                                                                                                                                                  technical material
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ILKKWPWWPWRRKHEAEPEAEPIMILKK 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ILKKWPWWPWRRK----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           leukaemia, multiple myeloma, or tumours of breast, lung, ovary,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ed in the pharmaceutical composition of the invention. relates to a pharmaceutical composition containing at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            polyoxyalkylene (APO)-modified cationic
                                                                                                                    useful therapeutically,
                                                                                                                                                                                                               Fraser JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                analogue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    represents a
                                                                                                                                                                                                                                                                  97US-0034949.
96US-0024754.
                                                                                                                                                                                                                                                                                                           97WO-US14779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15;
                                                                                          129pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             41.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 composition containing fied cationic peptides,
                                                                                                                                                                                                               Krieger TJ,
                                                                                            English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cationic peptide amino acid sequence,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ----MILKK 18
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Pred.
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                                                                                                                      as
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No.
                                                                                                                                                                                                               Taylor R,
                                                                                                                      disinfectants
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.es 0;
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                                                                                                                                                                                                                West MH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             peptide. The activity against tumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                      etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  treating tumours
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10;
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invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The

cells, including those with a multidrug repharmaceutical composition can be used to

multiple myeloma,

treat tumours,

specifically

WPI;

2000-223549/19

HD,

Krieger

Taylor

В,

Erfle

Á

Fraser

JR,

West MHP;

(MICR-) MICROLOGIX BIOTECH INC

12-JUN-1998; 14-JUN-1999;

98US-0096541 99WO-CA00552

Novel pharmaceutical composition opolyoxyalkylene-modified cationic

containing peptides,

optionally useful for

activated treating t

tumours

Disclosure;

Page

15;

94pp;

English.

sequence be used in

in the

represents a cationic

esents a cationic peptide amino acid sequence pharmaceutical composition of the invention.

sequence,

which

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RESULT 9
AAY91808
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 18
                                                                                                                                                                                                                                                                                                                                                          fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or trematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoldes, Fasciola hepatica, Klebsiella pneumoniae, Bordetella pertussis, Staphylococcus aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compound derived from the analogues may be used similarly; the compounds may also be prepared from antiblotics or antiarrythmic agents. The analogue may be used therapeutically or to coat medical devices; also they are useful as surface disinfectants, as additives to shampoo or soaps, as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         insecticides or herbicides, or as preservatives for foods and technical materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1-50 mg/kg. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY91808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY91808 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                              23-DEC-1999
                                                                                                                                                                                                                                                                                                                      WO9965506-A2
                                                                                                                                                                                                                                                                                                                                                                                                     Cationic peptide; tumour; pharmaceutical
                                                                                                                                                                                                                                                                                                                                                                                                                            Amino acid sequence of cationic peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               reduces their toxicity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            infections caused by bacteria (Gram positive or negative,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         in (VIII) at least 2 X =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 ILKKWPWWPWRRKHEAEPEAEPIMILKK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  entry)
                                                                                                                                                                                                                                                                                                                                                                             kylene-modified; APO; lymphoma; |
cervix; uterus; skin; prostate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    40
64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         F or Y. The analogues are used
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98;
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                                                                                                                                                                                                                                                                                                                                                                                                                             MBI 11D6CN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                     composition;
                                                                                                                                                                                                                                                                                                                                                                                           lymphoma; multiple myeloma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                      cancer; treatment;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          to treat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               or anaerobic);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The analogues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10;
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Sox

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ARESULT 10
AAY24570
ID AAY2470
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                                                                                                                     AAX24549 to AAX24615 represent indolicidin analogues of formulae CC (1)-(VIII) containing up to 25 amino acids (aa): RXZXXXB (1), BXZXXZXB C(1), BXZXXZXB (1), BXZXXZXBB(AA)nM CCC (II), BBBXZXXZXB (III), BXZXXZXBBB(AA)nM CCC (V), LBBXZXXXXBR (VII), EKXXXXXRRK (VII) and BBXZXXXXBBB (VIII). CC Where Z = P or Y; x = hydrophobic residue, preferably W; B = basic aa, CC with a caused by bacteria (Gram positive or negative, or anaerobic); in (VIII) at least 2 x = F or Y. The analogues are used to treat CC ingi (yeast or moulds); parasites (protozoa, nematodes, cestodes or CC trematodes) or viruses. Typical of very many pathogens that can be CC controlled are Leishmania. Trypanosoma, Ascaris lumbricoides; Fasciola CC controlled are Leishmania. Trypanosoma, Ascaris lumbricoides; Fasciola CC controlled are Leishmania. Trypanosoma, Ascaris lumbricoides; Fasciola CC controlled are Leishmania. Totavirus and papilloma virus. Compounds CC aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds CC also be prepared from antibiotics or antiarrythmic agents. The analogues may be used therapeutically or to coat medical devices; also they are CC useful as surface disinfectants, as additives to shampoo or soaps, as cuseful as surface disinfectants, as additives to shampoo or soaps, as controlled and technical controlled and technic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indolicidin; bacterial infection; photo-oxidised solubiliser; antimicrobial; antibiotic; antiarrythmic; surface disinfectant; additive; shampoo; soap; insecticide; herbicide; preservative; food; technical material.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New indolicidin analogues with antimicrobial activity and nucleic acid - vectors, transformed cells and antibodies, conjugates with polyoxyalkylene glycol and fatty acid to toxicity, useful therapeutically, as disinfectants etc.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 12; Page 89; 129pp; English.
insecticides or herbicides, or as preservatives for foods and technical materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1-50 mg/kg. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ILKKWPWWPWRR-----IMILKK 18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cationic peptide; tumour; pharmaceutical composition; cancer; treatment; leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon;
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                                                                                                                                                                                                                         This sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, cervix, uterus, skin, prostate, liver and colon.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence represents a specifically claimed novel isolated cationic peptide which has antimicrobial activity. The amino acid sequence of antimicrobial cationic peptides (including the present sequence) is selected from: XIXIProXZX3XZPro(XZXZPro)NXZX3(X5)o; XIXIProXZX3X4(X5); FORD)UX3XXX5XZXZX5Z2(X5)o; XIXIProXZX3X4(X5); FORD)UX3XXX5XZXXXXZZZ(X5)o; XIXIX3XXZPro(XZXZPro)NZX(X5)m; where m = 1-5; n = 1-2; o = 2-5; r = 0-8; u = 0-1; X1 = Ile, Leu, Val, Phe, Tyr, Trp or Met; X2 = Trp or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       may be used as sterilants or preservatives of materials susceptible to microbial or viral contamination, e.g. in processed foods to inhibit salmonella, Yersina and Shigella. The peptides are compact and tend to have a unique polyproline type II extended helix structure that permits them to span the membrane with relatively few amino acids. The peptides possess the ability to work synergistically with antibiotics, and in addition, some of then possess anti-endotoxin activity.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bacterial; viral; antitumour; food; preservative; inhibitor; bacterium; yeast; endotoxaemia; sepsis; antibiotic; fungal; antiviral; Candida albicans; sterilant; Salmonella; Yersina;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 2; Page 65; 89pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence represents SEQ ID NO:1 in the claims and ples of the specification, but differs slightly from the SEQ ID NO: he sequence listing on page 51 of the specification (see AAW27179).
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                                                                                                                                                                                                     37.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hancock REW
                                                                                                                                                             0;
                                                                                                                                                                                                     Score 91;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ΑA
                                                                                                                                                                  Mismatches
                                                                                                                                                                                                     DB 18; 1
4.1e-05;
                                                                                                                                                             0,
                                                                                                                                                                                                                                            Length 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    inhibitor;
                                                                                                                                                             0;
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RESULT 13

RESULT 14

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                                                                    Matches
                                                                                    Best
                                                                                                   Query Match
                                                                                                                                                                                                                                                           aureus, Listeria, Clostridium, rotavirus and papilloma virus. Compounds derived from the analogues may be used similarly; the compounds may also be prepared from antibiotics or antiarrythmic agents. The analogues may be used therapeutically or to coat medical devices; also they are useful as surface disinfectants, as additives to shampoo or soaps, as
                                                                                                                                                                                      insecticides or herbicides, or as preservatives for foods and technical materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1-50 mg/kg. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                                                                                                                                                                                                                                                                                (II), BBBXZXXZXB (III), BXZXXZXBBBB(AA)nMILBBAGS (IV), BXZXXZXBB(AA)nM(V), LBBNXZNXXZNARK (VI), LKNXZXXZXRK (VII) and BBXZXXZXBBB (VIII). Where Z = P or V; X = hydrophobic residue, preferably W; B = basic aa, preferably R or K; AA = any aa; n = 0 or 1; in (II), at least 1 Z = V; in (VIII) at least 2 X = F or Y. The analogues are used to treat infections caused by bacteria (Gram positive or negative, or anaerobic); fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or trematodes) or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola hepatica, Klebsiella pneumoniae, Bordetella pertusais, Staphylococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New indolicidin analogues with antimicrobial activity and relate nucleic acid - vectors, transformed cells and antibodies, also conjugates with polyoxyalkylene glycol and fatty acid to reduce toxicity, useful therapeutically, as disinfectants etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY24609;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY24609 standard; peptide; 13 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 1; Page 32; 129pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1998-169090/15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Erfle D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13-JAN-1997;
21-AUG-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indolicidin; bacterial infection; photo-oxidised solubiliser; antihicrobial; antibiotic; antiharrythmic; surface disinfectan additive; shampoo; soap; insecticide; herbicide; preservative food; technical material.
                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (MICR-) MICROLOGIX BIOTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indolicidin analogue #61
                                                                                                                                                                         reduces their toxicity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (I)-(VIII)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY24549 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-AUG-1999
                                                                                    Local
                               1 ILKKWPWWPWRRK 13
                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fraser JR,
                                                                                                                                        13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               containing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY24615 represent indolicidin analogues of formulae containing up to 25 amino acids (aa): RXZXXZXB (I), B
                                                                    Conservative
                                                                                                                                        AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97US-0034949.
96US-0024754.
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                                                                                    100.0%;
                                                                                                       37.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Krieger TJ,
                                                                  0;
                                                                                    Score 91;
Pred. No.
                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Taylor R;
                                                                                    DB 19;
4.1e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                West MH
                                                                                                   Length 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   preservative;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           related
also
                                                                                                                                                                                                                                                                                                The analogues
                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BXZXXZXB
                                                                  Gaps
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                                                                                                                                                                                                                                  RESULT 15
AAW71690
ID AAW71
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Best Local Similarity
Matches 13; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indolicidin analogue; resistance; cationic peptide; antibiotic;
bacterial infection; tolerance; antibacterial; microorganism;
bacteria; fungus; parasite; virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-FEB-1998;
10-MAR-1997;
20-AUG-1997;
26-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cationic peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW66378;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence represents a specifically claimed cationic peptide from the present invention. The present invention describes compositions and methods for treating infection, especially bacterial infections. The compositions and methods use cationic peptides in combination with an antibiotic agent which are then administered to a patient to enhance the activity of the antibiotic agent, to overcome: (a) tolerance; (b) acquired resistance; and (c) inherent resistance. The combinations of antibiotics and cationic peptides can provide synergistic activity against a microorganism that is tolerant, inherently resistant, or has acquired resistance to an antibiotic agent. They can be used for killing e.g. bacteria, fungi, parasites and viruses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9840401-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New indolicidin peptide analogues - useful for, e.g. enhancing activity of antibiotic or overcoming tolerance, acquired resistance or inherent resistance of microorganisms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1998-520800/44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fraser JR, McNicol PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (MICR-) MICROLOGIX BIOTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                       AAW71690 standard; Peptide; 13 AA.
                                                                            Cationic peptide MBI11 (MW 1879).
MBII1; cationic peptide; plasmid pKL1; small cryptic plasmid; replication; RepA; vector; RAMP.
                                                                                                                                 11-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                            _
                                                                                                                                                                                                                                                                                                                                                                                                        ILKKWPWWPWRRK 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Page 93; 105pp; English
                                                                                                                                                                                                                                                                                                                                                                            ILKKWPWWPWRRK 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0030619.
97US-0040649.
97US-0915314.
97US-0060099.
                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           37.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             West MHP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        #5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 91;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 19; 1
4.1e-05;
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search completed: July 29,
Job time : 60.3151 secs

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Best Local S
Matches 13
                                                                                                                                      MBIII is a small (mol.wt. 1879) cationic peptide. DNA encoding MBIII has been incorporated into vector pR2h-B1, in which the replication leader (R2l) sequence of RepA (see also AAW71686) is joined to 2 Hpro peptides (see also AAW71692), to provide a vector for expression of MBIII in host cells. The invention provides controlled replication plasmid vectors (RAMP vectors) provides controlled replication plasmid vectors (RAMP vectors) gene encoding RepA. The vectors can reach very high levels of plasmid replication, but are not lethal to the host cell, and can be used to direct the high level expression of e.g. cytokines, antigens and therapeutic proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9841636-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 synthetic.
                                                                                                                                                                                                                                                                                                                                                 Increasing plasmid copy number in a cell with the repA gene product - and an small cryptic plasmid ori sequence, useful for high level expression of e.g. cytokines, antigens or therapeutic proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-MAR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                           Burian J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1998-531571/45.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (BURI/) BURIAN J.
(KAYW/) KAY W W.
                                                                                                                                                                                                                                                                                                                      Example 13; Page 54; 82pp; English.
                                                                                                                  Sequence
               1 ILKKWPWWPWRRK 13
                                                          l Similarity
13; Conserv
 ILKKWPWWPWRRK
                                                                                                                                                                                                                                                                                                                                                                                                                                           Kay WW;
                                                                                                                   13 AA;
                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97US-0040722
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                                                                            100.0%;
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                                                                          Score 91;
Pred. No.
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                                                                                             DB 19;
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Listing first 45 summaries
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                                                                                                                                                                                        141.5
137.5
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                                                                                                                                                93
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  July 29, 2003, 16:34:31; Search time 33.9589 Seconds (without alignments) 129.395 Million cell updates/sec
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                                                                                                                                                                                                                                     Match Length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
/cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*
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US-09-030-619-50
US-09-030-619-52
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US-09-030-619-51
US-09-030-619-95
US-09-030-619-95
US-09-030-619-95
US-09-030-619-108
US-09-030-619-108
US-09-030-619-17
US-09-030-619-17
US-09-030-619-67
US-09-030-619-53
US-09-030-619-53
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             Sequence 3, A
Sequence 72, A
Sequence 108, I
Sequence 47, A<sub>1</sub>
Sequence 67, A<sub>1</sub>
Sequence 112, I
Sequence 53, A<sub>1</sub>
                                                                                                                                           Sequence 104,
Sequence 50, A
Sequence 69, A
Sequence 52, A
Sequence 51, A
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                                                                                                                  Sequence 95,
Sequence 99,
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45	44	43	42	41	40	39	38	37	36	3 5	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
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æ	e 76,	e 75, App	æ	e 30,	23,	Sequence 82, Appl	42,	40,	43, App	113,	78, 1	114	79,	e 102,	e 94,	59,	58,	Sequence 48, Appl	e 24,	e 106,	æ	44,	39,	e 103	e 41,	e 73,	e 110	e 54, A	Sequence 109, App

## ALIGNMENTS

US-09-030-619-104

Sequence 104, Application US/09030619B Patent No. US20020035061A1

INFORMATION:

Krieger, Timothy J. Taylor, Robert Erfle, Douglas

APPLICANT: APPLICANT: APPLICANT:

Fraser,

Janet R

RESULT 2 US-09-030-619-50 망 Qy ; OTHER INFORMATION: Cationic Peptide Analogue US-09-030-619-104 SOFTWARE: F Matches Query Match 58.7%; Best Local Similarity 58.8%; APPLICANT: West, Michael H.P.
APPLICANT: MCNICOL, PATTICIA J.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALC
TITLE OF INVENTION: WITH ANYIBIOTICS
FILE REFERENCE: 660081.406 FILE REFERENCE: 660081.4.06

CURRENT APPLICATION NUMBER: US/09/030,619B

CURRENT FILING DATE: 1998-02-25

NUMBER OF SEQ ID NOS: 232 LENGTH: 28
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE: ω 4 KWPWWPWRRKHEAEPEAEPIMILKKWPWWPWRRK RWPWWPWRRK - -FastSEQ for Windows Version Conservative Score 141.5; Pred. No. 2.8 ILMRWPWWPWRRK Mismatches .8e-09; DB 9; 25 37 PEPTIDES ALONE OR IN COMBINATION Length 28; Indels 11; Gaps

Sequence

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RESULT 4
US-09-030-619-52
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US-09-030-619-69
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LENGTH: 21
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                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Krieger, Timothy J.
APPLICANT: Taylor, Robert
APPLICANT: Erfle, Douglas
APPLICANT: Fraser, Janet R.
APPLICANT: West, Michael H.P.
APPLICANT: McNicol, Patricia J.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
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Best Local Similarity 61.8%;
Matches 21; Conservative
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SEQ ID NO 50
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APPLICANT:
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APPLICANT: MCNicol, Patricia J.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
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CURRENT FILING DATE: 1998-02-25
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TYPE: PRT
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                                                                                                                                                                                                                                                                                          ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                               TYPE: PRT
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                                                                                                                                                                                                                                                                              FEATURE:
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                                                                                                                                                                                       Local
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                                                                                                              1 ILKKWPWWPWRRKHEAEPEAEPIMILKK 28
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                                                                                                                                                                                     Similarity
                                                                                              ILKKWPWWPWRRK----
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     Application US/09030619E
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Erfle, Douglas
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                                                                                                                                                                  Conservative
                                                                                                                                                                                   41.1%; 64.3%;
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2; Mismatches
                                                                                              ----MILKK 18
                                                                                                                                                                0;
                                                                                                                                                                                   Score 99;
Pred. No.
                                                                                                                                                                Mismatches
                                                                                                                                                                                 0.0001;
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SEQ ID NO 51
LENGTH: 20
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APPLICANT: MCNICO1, PATRICIA J.

TITLE OF INVENTION: COMPOSITIONS USING CATIONIC PEPTIDES ALC

TITLE OF INVENTION: WITH ANTIBIOTICS

FILE REFERENCE: 660081.406

CURRENT APPLICATION NUMBER: US/09/030,619B

CURRENT FILING DATE: 1998-02-25

NUMBER OF SEQ ID NOS: 232

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 52

LENGTH: 21
                                                               Query Match
Best Local Similarity
Matches 17; Conserv
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Best Local
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                                                                                                                                                                                                                                               APPLICANT: MCNICO1, Patricia J.

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
CURRENT APPLICATION UNMBER: US/09/030,619B
CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
SOFTWARE: FastSEQ for Windows Version 3.0
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                                                                                                                                                  OTHER INFORMATION: Indolicidin Analogue
                                                                                                                                                                   FEATURE:
                                                                                                                                                                                   ORGANISM: Artificial Sequence
                                                                                                                                                                                                       TYPE: PRT
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                 1 ILKKWPWWPWRRKHEAEPEAEPIMILKK 28
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1 ILKKWPWWPWRR------IMILKK 18
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ILKKWPWWPWRR----
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Erfle, Douglas
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Taylor, Robert
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West, Michael H.P.
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Erfle, Douglas
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                                                                  Conservative
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                                                                                  38.8%;
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-----MILKK 17
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                                                                                  Score 93.5;
Pred. No. 0.
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Pred. No.
                                                                  Mismatches
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; Sequence 95, Application US/09030619B
; Patent No. US20020035061A1

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RESULT 6 US-09-030-619-95

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US-10-252-773-3
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CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 95
                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS: 232

SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 99

LENGTH: 13
                Sequence 3, Application US/10252773 Publication No. US20030131383A1
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Best Local
GENERAL INFORMATION:
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Best Local
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TITLE OF INVENTION: COMPOSTITIONS AND METHODS FOR TREATING TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALC TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: MCNICO1, PATRICIA J.

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALC
TITLE OF INVENTION: WITH ANTIBIOTICS
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TYPE: PRT
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                                                                                                                                                                                                                                                                                                     ORGANISM: Artificial Sequence
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les 13; Conserv
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Erfle, Douglas
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Erfle, Douglas
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                                                                                                                                                                                      Conservative
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Pred. No.
                                                                                                                                                                                      Mismatches
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RESULT 9
US-09-030-619-72
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Вb
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                                                                                                                          ; OTHER INFORMATION: Indolicidin Analogue US-09-030-619-72
                                                                                                                                                                                     SOFTWARE: F
SEQ ID NO 72
LENGTH: 14
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
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                                                                                                                                                                                                                         APPLICANT: West, Michael H.P.
APPLICANT: McNicol, Patricia J.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 66081.406
CURRENT APPLICATION NUMBER: US/09/030,619B
CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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Best Local Similarity
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Best Local (
                                                             Matches
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CURRENT APPLICATION NUMBER: US/10/252,773
CURRENT FILING DATE: 2002-09-23
PRIOR APPLICATION NUMBER: 60/106,373
PRIOR FILING DATE: 1998-10-30
PRIOR FILING DATE: 1998-10-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 60/1
PRIOR FILING DATE: 1998-11-02
NUMBER OF SEQ ID NOS: 27
SOFTWARE: PATENTIN VET. 2.1
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TITLE OF INVENTION: DEGRADATION
TITLE OF INVENTION: DEGRADATION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 13
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                         FEATURE:
                                                                                                                                                                      ORGANISM: Artificial Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           72, Application US/09030619B
o. US20020035061A1
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                             1 ILKKWPWWPWRRK 13
                                                           l Similarity
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Fraser, Janet R.
West, Michael H.P.
McNicol, Patricia J.
LAWRENCE, CHRISTOPHER
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                                                         ilarity 100.0%;
Conservative
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Pred. No.
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                                                             Mismatches
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                                                                                         DB 9;
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0.0005;
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                                                             Indels
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RESULT 10 US-09-030-619-108

; Sequence 108, Application US/09030619B
; Patent No. US20020035061A1

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US-09-030-619-108
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US-09-030-619-47
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SEQ ID NO 108
LENGTH: 14
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                  , OTHER INFORMATION: Indolicidin Analogue 08\text{-}09\text{-}030\text{-}619\text{-}47
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Best Local Similarity
Thes 13; Conser
RESULT 12
US-09-030-619-67
; Sequence 67, Application US/09030619B
; Patent No. US20020035061A1
; GENERAL INFORMATION:
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CURRENT APPLICATION NUMBER: US/09/030,619B
CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
SOFTWARF.
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SEQ ID NO 47
LENGTH: 21
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APPLICANT: MCNICO1, Patricia J.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
FILE REFERENCE: 660081.406
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Fraser, Janet R.

APPLICANT: West, Michael H.P.
APPLICANT: West, Michael H.P.
APPLICANT: WCNICOL, PARTICIA J.
APPLICANT: MCNICOL, PARTICIA J.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Krieger, Timothy J.
APPLICANT: Taylor, Robert
APPLICANT: Erfle, Douglas
APPLICANT: Fraser, Janet R.
APPLICANT: West, Michael H.P.
APPLICANT: West, Michael H.P.
APPLICANT: West, Michael H.P.
                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/030,619B
CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
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                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS: 232
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                           ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
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; pred. No.
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Pred. No. 0.0019;
1; Mismatches
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US-09-030-619-67
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                                                                                                                                                                                                                                                      ; FEATURE:
; OTHER INFORMATION: Cationic Peptide Analogue
US-09-030-619-112
                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Fraser, Janet R.
APPLICANT: West, Michael H.P.
APPLICANT: West, Michael H.P.
APPLICANT: West, Michael H.P.
APPLICANT: West, Michael H.P.
TITLE OF INVENTION: COMPOSITIONS AND ME
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
FILE REFERENCE: 660081.406
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SEQ ID NO 112
FENGTH: 12
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
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APPLICANT:
APPLICANT:
                                                              RESULT 14
US-09-030-619-53
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patent No. US:
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Best Local Similarity
Matches 12; Conserv
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Sequence 53, Application US/09030619B Patent No. US20020035061A1
GENERAL INFORMATION:
APPLICANT: Krieger, Timothy J.
                                                                                                                                                                                         Best Local Similarity 100 Matches 12; Conservative
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CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 222
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                                                                                                                                                                                                                                                                                                                                   LENGTH:
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Erfle, Douglas
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100.0%;
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Pred. No.
                                                                                                                                                                                                               Score 86;
Pred. No.
                                                                                                                                                                                                 0;
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. 0.0013;
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. 0.0017;
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APPLICANT: MCNICOL, MALCHAEL H.P.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
CURRENT APPLICATION NUMBER: US/09/030,619B
CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 232
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 107
LENGTH: 13
Typp: nom.
Search completed: July 29, 2003, 16:46:46
Job time: 34.9589 secs
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                                                                                                            QΥ
                                                                                                                                                                                                                              ; OTHER INFORMATION: Cationic Peptide Analogue US-09-030-619-107
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US-09-030-619-107
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; SEQ ID NO 53
; LENGTH: 13
; TYPE: PRT
; ORGANISM: Artificial Sequence
; PEATURE:
; OTHER INFORMATION: Indolicidin Analogue
US-09-030-619-53
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Best Local Sin
Matches 12;
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Best Local Similarity 41.9%;
Matches 13; Conservative
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TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANVISIOTICS
FILE REFERENCE: 660081.406
CURRENT APPLICATION NUMBER: US/09/030,619B
CURRENT FILLING DATE: 1998-02-25
RUMBER OF SEQ ID NOS: 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                  FEATURE:
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1 ILKKWPWWPWRR 12
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Erfle, Douglas
Fraser, Janet R.
West, Michael H.P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Krieger, Timothy J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fraser, Janet R.
West, Michael H.P.
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Erfle, Douglas
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100.0%; Pred. No.
tive 0; Mismatch
                                                                                                                                                Score 86; DB 9; L
Pred. No. 0.0018;
0; Mismatches 0;
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. 0.0018;
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                                                                                                                                                    Indels
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